## (FILE 'HOME' ENTERED AT 11:43:50 ON 04 JAN 2007)

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FILE 'CAPLUS, MEDLINE' ENTERED AT 11:44:08 ON 04 JAN 2007
L1
             77 S CHITOSAN? (P) SALT? (P) SPRAY?
             32 S CHITOSAN? (P) SALT? (P) SPRAY? (P) WATER?
L2
L3
             12 S CHITOSAN? (P) SALT? (P) SPRAY? (P) WATER? (P) DRY?
             9 S CHITOSAN? (P) SALT? (P) SPRAY? (P) WATER? (P) DRIED
L4
             1 S CHITOSAN? (P) SALT? PARTICLES (P) SPRAY?
L5
             2 S CHITOSAN? (P) SALT? (P) BLOOD PRESSURE (P) SPRAY?
L6
            11 S CHITOSAN? (P) SALT? (P) BLOOD PRESSURE
Ĺ7
L8
            11 S CHITOSAN? (P) ?SALT? (P) BLOOD PRESSURE
            77 S CHITOSAN? (P) ?SALT? (P) SPRAY?
L9
           31 S CHITOSAN? (P) ?SALT? (P) SPRAY? (P) DRY?
L10
           19 S L10 NOT L3
L11
            46 S L9 NOT L10
L12
L13
            0 S L12 AND ADHER?
L14
             2 S L12 AND BIND?
L15
            45 S L12 AND ON SALT?
            0 S L12 AND "ON SALT"
L16
             0 S L12 AND "SPRAYING CHITOSAN"
L17
             0 S L12 AND "SPRAYING THE CHITOSAN"
L18
          0 S L12 AND "SPRAYED THE CHITOSAN"
L19
L20
            10 S L12 AND CHITOSAN-SALT?
L21
            35 S L15 NOT L20
L22
            36 S L12 NOT L20
          333 S CHITOSAN-CONTAIN?
L23
            0 S CHITOSAN-CONTAIN? SALT?
L24
L25
             0 S ?CHITOSAN-CONTAIN? SALT?
             1 S ?CHITOSAN-SALT? (P) BLOOD PRESSURE?
L26
           12 S ?CHITOSAN-SALT? (P) SPRAY? ON
L27
            0 S ?SALT? BOUND TO CHITOSAN?
L28
            0 S ?SALT? CONTAIN? CHITOSAN?
L29
            0 S ?CHITOSAN-CONTAIN? COMPOUND?
L30
L31
            5 S ?CHITOSAN-CONTAIN? COMPO?
            0 S ?CHITOSAN-SALT COMPO?
L32
             0 S ?CHITOSAN-SALT MIXTURE?
L33
          182 S ?CHITOSAN-LACTATE?
L34
L35
           15 S L34 AND SPRAY?
             4 S L35 AND DRY?
L36
L37
             4 S L35 AND DRIED
           11 S L35 NOT L36
L38
L39
            8 S L38 NOT L37
          330 S ?CHITOSAN-SALT?
L40
            2 S L40 AND SALT PARTICLES?
L41
L42
           26 S L40 AND SPRAY?
```

ANSWER 1 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1277288 CAPLUS

TITLE: Salt resistance and its mechanism of cucumber under

effects of exogenous chemical activator

AUTHOR (S): Song, Shiqing; Liu, Wei; Guo, Shirong; Shang, Qingmao;

Zhang, Zhigang

CORPORATE SOURCE: Department of Horticulture and Gardening, Hebei Normal

University of Science and Technology, Changli, 066600,

Peop. Rep. China

SOURCE: Yingyong Shengtai Xuebao (2006), 17(10), 1871-1876

CODEN: YSXUER; ISSN: 1001-9332

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal LANGUAGE: Chinese

With root injection and foliar spray, this paper studied the effects of different concns. salicylic acid, brassinolide, chitosan and spermidine on the growth, morphogenesis, and physiol. and biochem. characters of cucumber (Cucumis sativus L.) seedlings under 200 mmol  $\cdot$  L-1 NaCl stress. The results showed that at proper concns., these four exogenous chemical activators could markedly decrease the salt stress index and mortality of cucumber seedlings, and the decrement induced by 0.01 mg · L-1 brassinolide was the largest, being 63.0% and 75.0%, resp. The activities of superoxide dismutase (SOD), peroxidase (POD) and catalase (CAT) increased significantly, resulting in a marked decrease of malondialdehyde (MDA) content and electrolyte leakage. The dry weight water content and morphogenesis of cucumber seedlings improved, and the stem diameter, leaf number, and healthy index increased significantly. All of these suggested that exogenous chemical activators at proper concns. could induce the salt resistance of cucumber, and mitigate the damage degree of salt stress. The salt resistance effect of test exogenous chemical activators decreased in the sequence of 0.005 .apprx. 0.05 mg · L-1 brassinolide, 150 .apprx. 250 mg · L-1 spermidine, 100 .apprx. 200 mg · L-1 chitosan, and 50 .apprx. 150 mg · L-1 salicylic acid.

ANSWER 2 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:752406 CAPLUS

DOCUMENT NUMBER: 145:187492

TITLE: Film-forming liquid composition for preservation of

salted pork in jelly

INVENTOR(S): Chang, Zhongyi; Zhao, Ning; Wang, Chunsheng

PATENT ASSIGNEE(S): Nanjing Yurun Food Co., Ltd., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 4 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE						
	CN 1806567	Α	20060726	CN 2006-10038056	20060126						
PRIC	RITY APPLN. INFO.:			CN 2006-10038056	20060126						
AB				food-grade lactic acid	0.8-2%,						
	chitosan 0.8-1.2%,	nisin 0	.008-0.012%,	and water as							
	balance. The composition is sprayed onto salted pork in										
	jelly and can form	a prese	rvative film	after air-drying, which	h						
	can destroy microbi	al enzy	me system, p	rohibit microbial respi	ration, and						
				permeability and prohi							
				ervative film, the stor							
	salted pork in jell				3						
				earance and taste of sa	lted						

pork in jelly.

ANSWER 3 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:723693 CAPLUS

DOCUMENT NUMBER: 145:165999

TITLE: Method for manufacturing chitosan-containing toasted

laver

INVENTOR(S): Jung, Bong Im

PATENT ASSIGNEE(S): S. Korea

Repub. Korean Kongkae Taeho Kongbo, No pp. given SOURCE:

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	KR 2004050265	Α	20040616	KR 2002-78050	20021210
PRIO	RITY APPLN. INFO.:			KR 2002-78050	20021210
	A method for manufacimprove taste, flavor health benefits. Moreover, a water convict with mixed oil constitutions to a sting the oil-confirst to a sted laver at 40-60° for 4-5 h powder; spraying the	or, and anufactor of the control of	nutrients oure comprises of 15-18%; composed so	ntaining toasted laver f toasted laver and to s the steps of: drying vering the dried laver ybean oil and 10-20% s 220° for 3-7 s; coveri ; drying crustacean sh obtain a chitosan nd salt	r is used to enhance fresh sesame oil;
	on the toasted lave:	r; toas	ting the chi	tosan- and salt-	
	sprayed laver at 28		-	nd cutting and	
	packaging the toaste	ed lave:	r.		

ANSWER 4 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:47114 CAPLUS

DOCUMENT NUMBER: 144:240009

Reverse temperature sensitive in-situ formation type TITLE:

implanting agent for injection

Lin, Ying; Zhu, Dequan; Ding, Fuxin; Zan, Jia; Jiang, INVENTOR(S):

Guogiang

Tsinghua University, Peop. Rep. China PATENT ASSIGNEE(S):

Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp. SOURCE:

CODEN: CNXXEV

DOCUMENT TYPE: Patent Chinese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE							
	CN 1631357	A	20050629	CN 2004-10009786	20041112							
PRIOR	RITY APPLN. INFO.:			CN 2004-10009786								
AB	The process compris	es diss	olving or su	spending the cellulose	derivative							
	salting-out salt in											
	microencapsulating											
	obtain microencapsulated salt; dissolving the cellulose derivative,											
	polyethylene glycol	, and the	he microenca	psulated salt in								
	water to the concen	tration	of 1-3.5, 1	-15, and 1-30%, resp.,	sterilizing,							
	and freeze drying.	The ce	llulose deri	vative is hydroxypropy.	l							
				Et hydroxyethyl cellul								
	Me cellulose. The											
	lactate, or citrate	. The i	microencapsu.	lating material is Na (	CM-cellulose,							
				acetate, Et cellulose,								
				tin, and/or chitosan.								

ANSWER 5 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:414487 CAPLUS

DOCUMENT NUMBER: 142:487632

TITLE: Hydrotalcite-based blood purifying adsorbent and its

preparation

INVENTOR(S): Ye, Ying; Zheng, Libo; Wang, Pu; Shen, Zhongyue;

Zhong, Huaiyang

PATENT ASSIGNEE(S): Zhejing University, Peop. Rep. China

Faming Zhuanli Shenqing Gongkai Shuomingshu, 8 pp. SOURCE:

CODEN: CNXXEV

DOCUMENT TYPE: Patent Chinese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
			+	
CN 1431043	Ά	20030723	CN 2003-115015	20030120
PRIORITY APPLN. INFO.:	•	•	CN 2003-115015	20030120

AB The blood purifying adsorbent, a chitosan or gelatin-like

substance-encapsulated hydrotalcite-[M1- xIIMIIIx(OH)2]Ax mH2O (MII = Mg2+, Zn2+, Fe2+, or other divalent metal ion; MIII = trivalent metal ion; A = Cl - or NO3 -; and x = 0.2 - 0.33), is prepared by adding hydrotalcite in 1-8% chitosan-1-8% gelatin-like substance solution, heating at 30-60°C for 2-6 h under bubbling N2, spraying into 0.1-5% NaOH solution to solidify, separating, washing, and vacuum drying.

gelatin-like substance is gelatin, agar, and/or agarose. The hydrotalcite is prepared by dissolving Mg salt and Al salt in

water to obtain 0.5-1.0M Mg salt-0.2-0.5M Al

salt solution, co-dropping with 1.5-2.5M NaOH solution in water under bubbling N2, stirring at 50-80°C for 10-24 h, vacuum drying, and grinding to <200 mesh. The Mg salt is MgCl2 or Mg(NO3)2. The Al salt is AlCl3 or Al(NO3)3.

ANSWER 6 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN L3

ACCESSION NUMBER: 2004:1015840 CAPLUS

DOCUMENT NUMBER: 141:428027

TITLE: Method for producing a chitosan-bound salt with

antihypertensive activity

INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park,

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S): S. Korea

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	NO.			KIN	D :	DATE		•	APPL	ICAT	ION	NO.		D	ATE		
					-												
WO 2004	1006	81		A1		2004	1125	,	WO 2	004-	KR41	0		2	0040	227	
W:,	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	ВG,	BR,	BW,	BY,	ΒZ,	CA,	CH,	
	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
	GΕ,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KZ,	LC,	LK,	
	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	NO,	
	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,	
	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW		
RW:	BW,	GH,	GM,	KΕ,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	AM,	ΑŻ,	
	BY,	KG,	KZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
	ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
KR 2004	0995	87		Α		2004	1202	1	KR 2	003-	3161	5		20	00309	519	

EP 1631155 20060308 EP 2004-715573 20040227 **A1** R: DE, ES, FR, GB, IT JP 2006518190 Т 20060810 JP 2005-518455 20040227 US 2005232999 A1 20051020 US 2004-518419 20041217 PRIORITY APPLN. INFO.: KR 2003-31616 A 20030519 WO 2004-KR410 W 20040227

The present invention relates to a method for producing a chitosan -bound salt having the function of lowering blood pressure. method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.

REFERENCE COUNT: THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 7 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:726046 CAPLUS

DOCUMENT NUMBER: 142:62449

TITLE: Characterization of chitosan acetate as a binder for

sustained release tablets

AUTHOR (S): Nunthanid, J.; Laungtana-anan, M.; Sriamornsak, P.;

Limmatvapirat, S.; Puttipipatkhachorn, S.; Lim, L. Y.;

Khor, E.

· CORPORATE SOURCE: Department of Pharmaceutical Technology, Faculty of

Pharmacy, Silpakorn University, Nakhon Pathom, 73000,

Thailand

SOURCE: Journal of Controlled Release (2004), 99(1), 15-26

CODEN: JCREEC; ISSN: 0168-3659

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

A chitosan derivative as an acetate salt was successfully prepared by a spray drying technique. Physicochem. characteristics and micrometric properties of spray-dried chitosan acetate (SD-CSA) were studied as well as drug-polymer and excipient-polymer interaction. SD-CSA was spherical agglomerates with rough surface and less than 75  $\mu m$  in diameter. The salt was an amorphous solid with slight to moderate hygroscopicity. The results of Fourier transform IR (FTIR) and solid-state 13C NMR spectroscopy demonstrated the functional groups of an acetate salt in its mol. structure. DSC and TGA thermograms of SD-CSA as well as FTIR and NMR spectrum of the salt, heated at 120°C for 12 h, revealed the evidence of the conversion of chitosan acetate mol.

structure to N-acetylglucosamine at higher temperature No interaction of SD-CSA

with either drugs (salicylic acid and theophylline) or selected pharmaceutical excipients were observed in the study using DSC method. wet granulation binder, SD-CSA gave theophylline granules with good flowability (according to the value of angle of repose, Carr's index, and Hausner ratio) and an excellent compressibility profile comparable to a pharmaceutical binder, PVP K30. In vitro release study of theophylline from the tablets containing 3% weight/weight SD-CSA as a binder demonstrated sustained drug release in all media. Cumulative drug released in 0.1 N HCl, pH 6.8 phosphate buffer and distilled water was nearly 100% within 6, 16 and 24 h, resp. It was suggested that the simple incorporation of spray-dried chitosan acetate as a tablet binder could give rise to controlled drug delivery systems exhibiting sustained drug release.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:272084 CAPLUS

DOCUMENT NUMBER: 136:261821

TITLE: Method comprising flocculation clarification and

ultrafiltration concentration of producing composite

immunoreactive proteins from chicken egg

INVENTOR(S): Yang, Yanjun

PATENT ASSIGNEE(S): Jiangnan Univ., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 8 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1312295	A	20010912	CN 2001-108225	20010221
CN 1129609	В	20031203		
RITY APPLN.	INFO.:		CN 2001-108225	20010221

PRIOR AB The process comprises isolating egg yolk from fresh egg; extracting with water at pH 4.8-7.7 for 5-25 min; centrifuging or precipitating for 5-18 h to obtain egg yolk extract; flocculating with 0.2-1.1% flocculant (composed of soluble Ca salt such as Ca(OAc)2 or Ca lactate, chitosan , and phosphate such as Na3PO4 or K3PO4 at a ratio of 0.02-0.3:0-0.12:0.16-0.68) at pH 4.5-8.5 for 5-20 min; standing for 20-60 min; filtering or centrifuging; ultrafiltering with ultrafilter membrane (such as cellulose acetate membrane, modified polysulfone membrane, polyether sulfone membrane, or polyvinylidene fluoride membrane); sterilizing with 0.22 μm ultrafilter membrane; and freezing at -30 to -50°C for 24 h. Fresh eggs are collected from chicken immunized with pathogenic bacteria from human intestine, virus, or caries bacteria. The content of transferrin in the immunoreactive protein was >10%. The isolated chicken immunoreactive proteins comprising Igs. and transferrin are useful as nutrition supplement for infant formula. The method also produces byproducts such as egg-yolk powder and egg-white powder by spray -drying for food purpose.

L3 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:23468 CAPLUS

DOCUMENT NUMBER: 130:100718

TITLE: Toilet seat cleaners containing chitosan and

quaternary ammonium salts

INVENTOR(S): Takano, Izumi; Takahashi, Yukiko PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11001700	Α	19990106	JP 1997-157205	19970613
PRIORITY APPLN. INFO.:			JP 1997-157205	19970613

AB The cleaners contain chitosan and quaternary ammonium salts, preferably benzalkonium chloride (I). The cleaners are directly sprayed over a toilet seat or used by impregnating cotton, gauze, or nonwoven fabrics with them. The cleaners show long-lasting disinfectant effect. Water 40, glacial acetic acid

0.13, Flonac C 0.25, I 0.1, glycerin 1.0, and EtOH 47.4 weight parts were mixed to give a toilet cleaner. The cleaner showed quick drying property and good antibacterial effect.

L3 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:690526 CAPLUS

DOCUMENT NUMBER: 123:226085

TITLE: Surface structures and surface-active components in

food emulsions

AUTHOR(S): Bergenstaahl, Bjoern; Faeldt, Pia; Malmsten, Martin CORPORATE SOURCE: INSTITUTE SURFACE CHEMISTRY, Stockholm, S-114 86,

Swed.

SOURCE: Special Publication - Royal Society of Chemistry

(1995), 156 (Food Macromolecules and Colloids), 201-14

CODEN: SROCDO; ISSN: 0260-6291

PUBLISHER: Royal Society of Chemistry DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review, with 23 refs. Food emulsions are complex mixts., and they usually contain both low-mol.-weight surface active lipids and a versatile range of more or less surface-active proteins and polysaccharides. In systems containing several surface-active components, 3 types of adsorbed layers can be identified, based on how the layers are formed. The properties of these adsorption structures (competitive adsorption, associative adsorption, and layered adsorption) are discussed, and examples demonstrating these ideas in different systems are presented. Competitive adsorption at the air-water interface during spray drying, adsorption of apoproteins to phospholipid surfaces, adsorption of chitosan to bile salt + phospholipid surfaces, adsorption of hydrocolloids to emulsifier surfaces, and other topics are detailed.

L3 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:635078 CAPLUS

DOCUMENT NUMBER: 115:235078

TITLE: Nonwood fiber-based paper with good printability

INVENTOR(S): Kanayama, Nozomi; Endo, Akitaro PATENT ASSIGNEE(S): Daifuku Seishi K. K., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ----\_\_\_\_\_ -----Α JP 03167388 19910719 JP 1989-308119 19891127 PRIORITY APPLN. INFO.: JP 1989-308119 19891127 The title paper is made from pulps containing bast and/or leaf fibers and water-insol. fibrous CM-cellulose and salts and is coated with chitosan at least on its printing surface. Thus, handsheets (basis weight 40 g/m2) of 90:10 manila hemp fibers and CM-cellulose (degree of substitution 0.33) were sprayed with a .apprx.2% solution of 1:1 chitosan-glycolic acid (dry pickup 0.5%), and dried at 120° on a mirror drum. The sheets had better strength and printability than without CM-cellulose or chitosan.

L3 ANSWER 12 OF 12 MEDLINE ON STN ACCESSION NUMBER: 2004437121 MEDLINE DOCUMENT NUMBER: PubMed ID: 15342177

TITLE: Characterization of chitosan acetate as a binder for

sustained release tablets.

AUTHOR: Nunthanid J; Laungtana-Anan M; Sriamornsak P; Limmatvapirat

S; Puttipipatkhachorn S; Lim L Y; Khor E

CORPORATE SOURCE: Department of Pharmaceutical Technology, Faculty of

Pharmacy, Silpakorn University, Nakhon Pathom 73000,

Thailand.. jurairat@email.pharm.su.ac.th

SOURCE: Journal of controlled release : official journal of the

Controlled Release Society, (2004 Sep 14) Vol. 99, No. 1,

pp. 15-26.

Journal code: 8607908. ISSN: 0168-3659.

PUB. COUNTRY:

Netherlands

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200503

ENTRY DATE:

Entered STN: 3 Sep 2004

Last Updated on STN: 5 Mar 2005 Entered Medline: 4 Mar 2005

AB A chitosan derivative as an acetate salt was successfully prepared by using a spray drying technique. Physicochemical characteristics and micromeritic properties of spray-dried chitosan acetate (SD-CSA) were studied as well as drug-polymer and excipient-polymer interaction. SD-CSA was spherical agglomerates with rough surface and less than 75 microm in diameter. The salt was an amorphous solid with slight to moderate hygroscopicity. The results of Fourier transform infrared (FTIR) and solid-state (13)C NMR spectroscopy demonstrated the functional groups of an acetate salt in its molecular structure. DSC and TGA thermograms of SD-CSA as well as FTIR and NMR spectrum of the salt , heated at 120 degrees C for 12 h, revealed the evidence of the conversion of chitosan acetate molecular structure to N-acetylglucosamine at higher temperature. No interaction of SD-CSA with either drugs (salicylic acid and theophylline) or selected pharmaceutical excipients were observed in the study using DSC method. As a wet granulation binder, SD-CSA gave theophylline granules with good flowability (according to the value of angle of repose, Carr's index, and Hausner ratio) and an excellent compressibility profile comparable to a pharmaceutical binder, PVP K30. In vitro release study of theophylline from the tablets containing 3% w/w SD-CSA as a binder demonstrated sustained drug release in all media. Cumulative drug released in 0.1 N HCl, pH 6.8 phosphate buffer and distilled water was nearly 100% within 6, 16 and 24 h, respectively. It was suggested that the simple incorporation of spray-dried chitosan acetate as a tablet binder could give rise to controlled drug delivery systems exhibiting sustained drug release.

ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:723693 CAPLUS

DOCUMENT NUMBER: 145:165999

Method for manufacturing chitosan-containing toasted TITLE:

INVENTOR(S): Jung, Bong Im

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2004050265	Α	20040616	KR 2002-78050	20021210
PRIORITY APPLN. INFO.:		•	KR 2002-78050	20021210
AB A method for manu	facturing	chitosan c	ontaining toasted lave	er is used to
improve taste, fl	avor, and	nutrients	of toasted laver and	to enhance
health benefits.	Manufact	ure compris	es the steps of: drying	ng fresh laver to a
water content of	15-18%; c	overing the	dried laver with	
mixed oil consist	ing of 80	-90% soybea	n oil and 10-20% sesar	me oil; toasting
the oil-covered la	aver at 1	80-220° for	3-7 s; covering the	first
toasted laver wit	h the mix	ed oil; dry	ing crustacean shells	at .
40-60° for 4-5 h	and pulve	rizing to o	btain a chitosan	
powder; spraying	the chito	san powder	and salt	
on the toasted la	ver; toas	ting the ch	itosan- and salt-	
sprayed laver at				
packaging the toa	sted lave	r.	3	

ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:1106018 CAPLUS

TITLE:

Production method of miinsol milk

INVENTOR(S):

Suh, Young Hun

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

FAMILY ACC. NUM. COUNT:

Korean

1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	KR 2001045675	A	20010605		19991105
PRIO	RITY APPLN. INFO.:			KR 1999-49042	19991105
AB	PURPOSE: A method	for prod	ducing Miins	ol milk comprising 7	2 kinds of foods
				ong to metal among th	
				d earth), with calcin	
				or sprouts is provide	·
				ion and prevent or t	
				be classified accord	
				d earth), the five ca	
				black) and the five	
		-	•	es). CONSTITUTION:	
				ing steps of: (i) ste	
				2hr and passing through	
				(ii) aging the preparation	
				r with spraying herb	
				4hr; (iii) repeating	
				(iv) extracting the	
	at 20-50deg.C and	adding n	nilk to the	extract; and then (v)	) getting Miinsol

milk by mixing calcium, chitosan and extract of pine needles or sprouts with the mixture of milk and the extract. The 72 kinds of foods includes 2.0% of arrowroot, 1.0% of bean sprouts, 35.0% of wild edible greens, 9% of pine needles, 10.0% of Rhynchosia Nulubilis, 1.0% of black bean and adzuki bean, 0.3% of mung beans, 1.0% of arrowroot sprout, 2.0% of pine mushroom, 0.3% of sesame leaf, 2.0% of leek, 1.0% of Indian millet, 1.5% of millet, 10.0% of brown rice, 0.3% each of bean, Artemisia capillaris Thunb., Indangssuk, mugwort, kale, carrot, cabbage, anchovy, dropwort, bean sprouts, dried walleye pollack, Angelica gigas Nakai, spinach, Chinese bellflowers, corn, perilla seed, foxtail millet, barley, black sesame, wild rocambole, Jobs-tear, glutinous rice, sesame, green laver, pine pollen, Hizikia fusiformis, pine buds, brown seaweed, tangleweed, bamboo sprout, sunflower seeds, mulberry leaves, jujube and dropwort, 2.0% of shiitake mushroom, 0.3% of walnut, 2.0% each of Coriolus versicolor and Ganoderma lucidum, 0.3% each of bean leaf, pumpkin seed, apricot, garlic, peanut, persimmon, radish, burdock, lotus root, taro, parsley, and chestnut, 1.0% of old pumpkin, and 0.3% each of radish tops, aster scaber thunb, shepherds purse, green onion, laver, potato, sweet potato and pine nut.

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:869406 CAPLUS

DOCUMENT NUMBER:

142:154620

TITLE:

Manufacturing method of new functional salt and

development of use thereof

INVENTOR (S):

Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

ADDITORDION NO

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

KTMD

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND		APPLICATION NO.	DATE
PRI		Α		KR 2000-60499 KR 2000-60499	
AB	A manufacturing med	thod of	new functio	nal salt and developme:	nt of use
	thereof are provide antibiosis, by stip after dissolving saftunctional salt compared in a salt solution crystallized $\alpha$ - chies shrimp and $\beta$ - chies weight of the chies capacity with a chiese the chiese of the	ed, which rring sa alt to ke to the control of the	ch has effect alt and $\alpha$ - considerable 20-23% of the constant of the constan	ts of decreasing blood hitosan the saturated solution itosan dissolved ied and from shells of crab and om squids. The mol.,000 MW for proper adm. The content of the .5-5%. The chitosan olution and mixed with For making 23% of natural of the chitosan	pressure and  n New  d esive
	spray-dried or consalt having the chi	centrati			

L4 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:726046 CAPLUS

DOCUMENT NUMBER:

142:62449

TITLE:

Characterization of chitosan acetate as a binder for

sustained release tablets

AUTHOR (S):

Nunthanid, J.; Laungtana-anan, M.; Sriamornsak, P.;

Limmatvapirat, S.; Puttipipatkhachorn, S.; Lim, L. Y.;

Khor, E.

CORPORATE SOURCE: Department of Pharmaceutical Technology, Faculty of

Pharmacy, Silpakorn University, Nakhon Pathom, 73000,

SOURCE: Journal of Controlled Release (2004), 99(1), 15-26

CODEN: JCREEC; ISSN: 0168-3659

PUBLISHER: DOCUMENT TYPE: Elsevier B.V.

Journal

LANGUAGE: English

A chitosan derivative as an acetate salt was successfully prepared by a spray drying technique. Physicochem. characteristics and micrometric properties of spraydried chitosan acetate (SD-CSA) were studied as well as drug-polymer and excipient-polymer interaction. SD-CSA was spherical agglomerates with rough surface and less than 75 µm in diameter The salt was an amorphous solid with slight to moderate hygroscopicity. The results of Fourier transform IR (FTIR) and solid-state 13C NMR spectroscopy demonstrated the functional groups of an acetate salt in its mol. structure. DSC and TGA thermograms of SD-CSA as well as FTIR and NMR spectrum of the salt, heated at 120°C for 12 h, revealed the evidence of the conversion of chitosan acetate mol. structure to N-acetylglucosamine at higher temperature No interaction of SD-CSA with either drugs (salicylic acid and theophylline) or selected pharmaceutical excipients were observed in the study using DSC method. As a wet granulation binder, SD-CSA gave theophylline granules with good flowability (according to the value of angle of repose, Carr's index, and Hausner ratio) and an excellent compressibility profile comparable to a pharmaceutical binder, PVP K30.

weight/weight SD-CSA as a binder demonstrated sustained drug release in all media. Cumulative drug released in 0.1 N HCl, pH 6.8 phosphate buffer and distilled water was nearly 100% within 6, 16 and 24 h, resp. It was suggested that the simple incorporation of spray-dried chitosan acetate as a tablet binder could give rise to controlled drug delivery systems exhibiting sustained drug release.

In vitro release study of theophylline from the tablets containing 3%

REFERENCE COUNT: 46

THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:174461 CAPLUS

DOCUMENT NUMBER:

141:179341

TITLE:

Microencapsulation of hydrophilic drug substances. using biodegradable polyesters. Part II: Implants allowing controlled drug release - a feasibility study

using bisphosphonates

AUTHOR(S):

Weidenauer, U.; Bodmer, D.; Kissel, T.

CORPORATE SOURCE:

Dep. Pharmaceutics and Biopharm., Philipps-Univ.,

Marburg, D-35032, Germany

SOURCE:

Journal of Microencapsulation (2004), 21(2), 137-149

CODEN: JOMIEF; ISSN: 0265-2048

PUBLISHER:

Taylor & Francis Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

The prolonged delivery of hydrophilic drug salts from hydrophobic polymer carriers at high drug loading is an ambitious goal. Pamidronate disodium salt (APD) containing implants prepared from spray-dried microparticles were investigated using a

laboratory ram extruder. An APD-containing polymer matrix consisting of an APD-

chitosan implant embedded in the biodegradable polymer D,L-poly(lactide-co-glycolide acid-glucose) (PLG-GLU) was compared with a matrix system with the micronized drug distributed in the PLG-GLU. The

APD-chitosan matrix system showed a triphasic release behavior at loading levels of 6.86 and 15.54% (weight/weight) over 36 days under in-vitro

conditions. At higher loading (31.92%), a drug burst was observed within 6 days due to the formation of pores and channels in the polymeric matrix. In contrast, implants containing the micronized drug showed a more continuous release profile over 48 days up to a loading of 31.78% (weight/weight). At a drug loading of 46.17% (weight/weight), a drug burst was observed Using micronized

drug salts and reducing the surface area available for diffusion, parenteral delivery systems for highly water-soluble

drug candidates were shown to be tech. feasible at high drug loadings.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:635078 CAPLUS

DOCUMENT NUMBER: 115:235078

TITLE: Nonwood fiber-based paper with good printability

INVENTOR(S): Kanayama, Nozomi; Endo, Akitaro PATENT ASSIGNEE(S): Daifuku Seishi K. K., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ----\_\_\_\_\_ A 19910719 JP 1989-308119 19891127 JP 03167388 PRIORITY APPLN. INFO.: JP 1989-308119 19891127 The title paper is made from pulps containing bast and/or leaf fibers and water-insol. fibrous CM-cellulose and salts and is coated with chitosan at least on its printing surface. Thus, handsheets (basis weight 40 g/m2) of 90:10 manila hemp fibers and CM-cellulose (degree of substitution 0.33) were sprayed with a .apprx.2% solution of 1:1 chitosan-glycolic acid (dry pickup 0.5%), and dried at 120° on a mirror drum. The sheets had better strength and printability than without CM-cellulose or chitosan.

L4 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: . 1989:75976 CAPLUS

DOCUMENT NUMBER: 110:75976

TITLE: Water-soluble chitosan

INVENTOR(S): Kushino, Shigetaka; Asano, Hiroshi
PATENT ASSIGNEE(S): Nitta Gelatine Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 63225602 A 19880920 JP 1987-59229 19870313
PRIORITY APPLN. INFO.: JP 1987-59229 19870313

AB Water-soluble chitosan (I), useful as protein coagulant for medicines and foods, and hair prepns. (no data), was prepared by dehydrating aqueous solns. of salts of I (obtained by reaction of I and acids), then pulverized. Thus, 20 g powdered I was dispersed in 940 mL water, treated with 40 mL 50% aqueous lactic acid to give 2% aqueous solution

of I salt, which was evaporated under reduced pressure to 10% concentration, then spray-dried with air at 175° to give water-soluble powdered I. When the powder 15.0 g was added to 100 mL water, it dissolved immediately to give a solution with high concentration

ANSWER 8 OF 9 MEDLINE on STN ACCESSION NUMBER: 2004437121 MEDLINE DOCUMENT NUMBER: PubMed ID: 15342177

TITLE: Characterization of chitosan acetate as a binder for

sustained release tablets.

**AUTHOR:** Nunthanid J; Laungtana-Anan M; Sriamornsak P; Limmatvapirat

S; Puttipipatkhachorn S; Lim L Y; Khor E

CORPORATE SOURCE: Department of Pharmaceutical Technology, Faculty of

Pharmacy, Silpakorn University, Nakhon Pathom 73000,

Thailand.. jurairat@email.pharm.su.ac.th

SOURCE: Journal of controlled release : official journal of the

Controlled Release Society, (2004 Sep 14) Vol. 99, No. 1,

pp. 15-26.

Journal code: 8607908. ISSN: 0168-3659.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200503

ENTRY DATE: Entered STN: 3 Sep 2004

> Last Updated on STN: 5 Mar 2005 Entered Medline: 4 Mar 2005

AB A chitosan derivative as an acetate salt was

successfully prepared by using a spray drying technique.

Physicochemical characteristics and micromeritic properties of

spray-dried chitosan acetate (SD-CSA) were studied as well as drug-polymer and excipient-polymer interaction. SD-CSA was spherical agglomerates with rough surface and less than 75 microm in diameter. The salt was an amorphous solid with slight to moderate hygroscopicity. The results of Fourier transform infrared (FTIR) and solid-state (13)C NMR spectroscopy demonstrated the functional groups of an acetate salt in its molecular structure. DSC and TGA thermograms of SD-CSA as well as FTIR and NMR spectrum of the salt , heated at 120 degrees C for 12 h, revealed the evidence of the conversion of chitosan acetate molecular structure to N-acetylglucosamine at higher temperature. No interaction of SD-CSA with either drugs (salicylic acid and theophylline) or selected pharmaceutical excipients were observed in the study using DSC method. As a wet granulation binder, SD-CSA gave theophylline granules with good flowability (according to the value of angle of repose, Carr's index, and Hausner ratio) and an excellent compressibility profile comparable to a pharmaceutical binder, PVP K30. In vitro release study of theophylline from the tablets containing 3% w/w SD-CSA as a binder demonstrated sustained drug release in all media. Cumulative drug released in 0.1 N HCl, pH 6.8 phosphate buffer and distilled water was nearly 100%

within 6, 16 and 24 h, respectively. It was suggested that the simple incorporation of spray-dried chitosan

acetate as a tablet binder could give rise to controlled drug delivery systems exhibiting sustained drug release.

ANSWER 9 OF 9 MEDLINE on STN ACCESSION NUMBER: 2004297256 MEDLINE DOCUMENT NUMBER: PubMed ID: 15198426

TITLE: Microencapsulation of hydrophilic drug substances using

> biodegradable polyesters. Part II: Implants allowing controlled drug release -- a feasibility study using

bisphosphonates.

AUTHOR: Weidenauer U; Bodmer D; Kissel T CORPORATE SOURCE: Department of Pharmaceutics and Biopharmacy,

Philipps-University, D-35032 Marburg, Germany.

SOURCE: Journal of microencapsulation, (2004 Mar) Vol. 21, No. 2,

pp. 137-49.

Journal code: 8500513. ISSN: 0265-2048.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200409

ENTRY DATE: Entered STN: 17 Jun 2004

Last Updated on STN: 15 Sep 2004 Entered Medline: 14 Sep 2004

AB The prolonged delivery of hydrophilic drug salts from hydrophobic polymer carriers at high drug loading is an ambitious goal. Pamidronate disodium salt (APD) containing implants prepared from spray-dried microparticles were investigated using a laboratory ram extruder. An APD-containing polymer matrix consisting of an APD-chitosan implant embedded in the biodegradable polymer D,L-poly(lactide-co-glycolide acid-glucose) (PLG-GLU) was compared with a matrix system with the micronized drug distributed in the PLG-GLU. The APD-chitosan matrix system showed a triphasic release behaviour at loading levels of 6.86 and 15.54% (w/w) over 36 days under in-vitro conditions. At higher loading (31.92%), a drug burst was observed within 6 days due to the formation of pores and channels in the polymeric matrix. In contrast, implants containing the micronized drug showed a more continuous release profile over 48 days up to a loading of 31.78% (w/w). At a drug loading of 46.17% (w/w), a drug burst was observed. Using micronized drug salts and reducing the surface area available for diffusion, parenteral delivery systems for highly water-soluble drug candidates were shown to be technically feasible at high drug loadings.

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1015840 CAPLUS

DOCUMENT NUMBER: 141:428027

TITLE: Method for producing a chitosan-bound salt with

antihypertensive activity

INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park,

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S): S. Korea

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.			KIN	ND DATE			APPLICATION NO.				DATE							
 WC	2004	1006	 81		Δ1	A1 20041125			,	WO 2	 004-	 KD41			20040227			
,,,																		
	W:	ΑE,	AG,	AЬ,	ΑM,	AT,	AU,	AZ,	BA,	BB,	BG,	BK,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DΖ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	ΚZ,	LC,	LK,	
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	NO,	
		ΝZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	
		TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW		
	RW:	BW,	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	
		BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
		ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
KR	2004	0995	87		Α		2004	1.202	]	KR 2	003-	3161	5		20	0030	519	
EF	1631	155			A1		2006	0308	]	EP 20	004-	7155	73		20	0402	227	
	R:	DE,	ES,	FR,	GB,	IT												
JP	2006	5181	90		${f T}$		2006	0810		JP 20	005-	5184	55		20	0402	227	
US	2005	2329	99		A1		2005	1020	τ	JS 20	004-	51843	19		20	0412	217	•
PRIORIT	Y APP	LN.	INFO	. :	•				]	KR 20	003-3	31616	5	Z	A 20	0309	519	
									1	NO 20	004-1	KR410	)	1	v 20	0402	227	

AB The present invention relates to a method for producing a chitosan bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1015840 CAPLUS

DOCUMENT NUMBER: 141:428027

Method for producing a chitosan-bound salt with TITLE:

antihypertensive activity

Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park, INVENTOR (S):

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S): S. Korea

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                     KIND
                             DATE
                                       APPLICATION NO.
    _____
                      _ _ _ _
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                              20041125 WO 2004-KR410
    WO 2004100681
                       A1
                                                             20040227
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK,
            LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,
            NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
            TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
            ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
            TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
                             20041202 KR 2003-31616
20060308 EP 2004-715573
    KR 2004099587 A
                                                             20030519
    EP 1631155 .
                       A1
                                                               20040227
        R: DE, ES, FR, GB, IT
    JP 2006518190 T
                              20060810
                                      JP 2005-518455
                                                               20040227
                                        US 2004-518419
    US 2005232999
                        A1
                              20051020
                                                               20041217
PRIORITY APPLN. INFO.:
                                                           A 20030519
                                         KR 2003-31616
                                                           W 20040227
                                         WO 2004-KR410
```

AB The present invention relates to a method for producing a chitosan -bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystq. step.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:869406 CAPLUS

DOCUMENT NUMBER:

142:154620

TITLE:

Manufacturing method of new functional salt and

development of use thereof

INVENTOR(S):

Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2001000706	Α	20010105	KR 2000-60499	20001006
PRIORITY APPLN. INFO.:			KR 2000-60499	20001006
AB A manufacturing met	hod of	new function	al salt and developmen	it of use

A manufacturing method of new functional salt and development of use thereof are provided, which has effects of decreasing blood pressure and antibiosis, by stirring salt and  $\alpha$ chitosan after dissolving salt to be 20-23% of the saturated solution New functional salt contains 0.1-5% of chitosan dissolved in a salt solution and chitosan is dried and crystallized  $\alpha$ - chitosan is obtained from shells of crab and shrimp and  $\beta$ - chitosan is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a chloride ion of salt. The content of the chitosan is 0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a chitosan salt solution For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan.

ANSWER 1 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:807957 CAPLUS

DOCUMENT NUMBER: 145:248015

TITLE: Production of functional salt by heating roasted sea

> salt powder and chitosan to coat effective ingredient of chitosan to surface of sea salt whereby reducing salinity of sea salt and producing functional salt

having efficacy of chitosan

INVENTOR(S): Bae, Jo Jung PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
		<b></b>	*	
KR 2004102921	Α	20041208	KR 2003-34762	20030530
PRIORITY APPLN. INFO.:			KR 2003-34762	20030530

AΒ A method of making functional salt by heating roasted sea salt powder and chitosan to coat the effective ingredient of the chitosan to the surface of sea salt is provided. The product is reduced in the salinity of sea salt and has the efficacy of chitosan as well as immunostimulating action, anticancer action, antibacterial action, blood pressure lowering action or the like. Sea salt is roasted at 400 to 1,200 °C in a charcoal kiln and ground to 10 to 30meshes, 100% by weight of the ground sea salt is mixed with 3 to 10% by weight of chitosan and roasted at 200 °C in a stainless steel vessel and then packed. The chitosan is selected from water-soluble chitosan or chitosan oligosaccharide.

ANSWER 2 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:648539 CAPLUS

DOCUMENT NUMBER: 145:82354

TITLE: Manufacturing method of health seasoning salt

including green tea and chitooligosaccharide and

health seasoning salt manufactured thereby

INVENTOR(S): Jung, Man Jong

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent

LANGUAGE: Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE				
	KR 2004001369	A	20040107	KR 2002-36535	20020627				
PRIO	RITY APPLN. INFO.:			KR 2002-36535	20020627				
AB	Provided are a manu	facturi	ng method of	health seasoning salt	including				
	green tea and chitooligosaccharide and health seasoning salt								
	manufactured thereby. The green tea has anticancer activity and antibacterial								
	activity, lowers bl	ood cho	lesterol lev	el, and inhibits the in	crease of				
	blood pressure and	decreas	e of blood g	lucose level. The					
				cterial and anticancer	_				
	activity, decreases blood glucose level, regulates blood cholesterol								
				eases. The manufacturi					
heal					-				

seasoning salt including green tea and chitooligosaccharide comprises the steps of: dissolving 0.1-10% of green tea powder and 0.1-10% of chitooligosaccharide in 100 parts by weight of water; adding salt thereto, followed by stirring for 40-60 min; and naturally drying the mixture in the shade for 12-24 h.

L7 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1138831 CAPLUS

DOCUMENT NUMBER: 144:5825

TITLE: Fermented soybean paste containing

chitooligosaccharide

INVENTOR(S): Lee, Won Hui
PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2002046272	Α	20020620	KR 2002-31047	20020603
PRIORITY APPLN. INFO.:			KR 2002-24561 A	20020503

AB A fermented soybean paste is prepared by using chitooligosaccharide instead of directly using chitin or chitosan during the production of fermented soybean paste or soy sauce. The product has an improved taste and preservability and various physiol. actions such as anticancer activity, an antibacterial action, cholesterol-lowering activity, blood pressure-lowering activity, etc. A mixture of 16-17% by weight fermented soybean, 1-5% by weight chitooligosaccharide, and 17-19% by weight salt, plus water (to 100% by weight) is fermented at ambient temperature for 45-60 days to produce a fermented soybean paste. The filtrate is heated to produce soy sauce.

L7 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1015840 CAPLUS

DOCUMENT NUMBER: 141:428027

TITLE: Method for producing a chitosan-bound salt with

antihypertensive activity

INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park,

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S): S. Korea

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT :	TENT NO. KIND DATE				APPLICATION NO.				DATE								
		- <b></b>			- <b></b>													
WO	2004	1006	81		A1 20041125		1	WO 2004-KR410				20040227						
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KZ,	LC,	LK,	
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	NO,	
		ΝZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	
		TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ΥU,	ZA,	ZM,	ZW		
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	ΤZ,	ŪĠ,	ZM,	ZW,	AM,	ΑZ,	
		BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
		ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG
KR 2004099587			Α		2004:	1202		KR 2	003-	3161	6		20	0030	519			

EP 1631155 A1 20060308 EP 2004-715573 20040227 . R: DE, ES, FR, GB, IT JP 2006518190 Т 20060810 JP 2005-518455 20040227 US 2005232999 A1 20051020 US 2004-518419 20041217 PRIORITY APPLN. INFO.: KR 2003-31616 A 20030519 WO 2004-KR410 W 20040227

AB The present invention relates to a method for producing a chitosan -bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:885242 CAPLUS

DOCUMENT NUMBER: 142:133516

TITLE: Functional noodles

INVENTOR(S): Kim, Sook Hee; Woo, Ki Min

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND APPLICATION NO. DATE DATE -------------------20010205 20001101 KR 2001007980 Α KR 2000-64506 PRIORITY APPLN. INFO.: KR 2000-64506 Functional noodles are provided to extend an expiration date and to prevent high blood pressure and high cholesterol hematoma by adding chitin, chitosan, derivs. from chitin and chitosan, or oligosaccharides to ingredients for manufacturing wet noodle, modified cooked noodle, dry noodle, instant fried noodle and extruded noodle. Functional noodles contain chitin, chitosan, derivs. from chitin and chitosan or oligosaccharides in a range of 0.0001 weight% to 10 weight% comparing to total weight of noodles. Chitosan noodles has 30-62 weight% of flour, 6-13 weight% of starch, 0.1-2 weight% of salt, 0.01-0.2 weight% of alkalis, 0.02-0.12 weight% of gums, 0.001-0.01 weight% of coloring matters, 0.5-1.8 weight% of emulsifier,

0.01-0.05 weight% of polyphosphate salt and 20-25 weight% of water. The functional noodles are hand-beating noodle, wet noodle, buckwheat

noodles, cooked noodle, modified cooked noodle, dried noodle, extruded noodles like pasta, iced vermicelli and Chinese noodles.

L7 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:869406 CAPLUS

DOCUMENT NUMBER: 142:154620

TITLE: Manufacturing method of new functional salt and

development of use thereof

INVENTOR(S): Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent

LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

APPLICATION NO. PATENT NO. KIND DATE -----\_\_\_\_\_ KR 2001000706 Α 20010105 KR 2000-60499 20001006 PRIORITY APPLN. INFO.: KR 2000-60499 20001006 A manufacturing method of new functional salt and development of use thereof are provided, which has effects of decreasing blood pressure and antibiosis, by stirring salt and  $\alpha$ chitosan after dissolving salt to be 20-23% of the saturated solution New functional salt contains 0.1-5% of chitosan dissolved in a salt solution and chitosan is dried and crystallized  $\alpha$ - chitosan is obtained from shells of crab and shrimp and  $\beta$ - chitosan is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a chloride ion of salt. The content of the chitosan is 0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a chitosan salt solution For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan

L7 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:833007 CAPLUS

DOCUMENT NUMBER: 135:370991

TITLE:

SOURCE:

Compositions containing peptide and electrolyte excretion promoter and foods containing the same

Takahashi, Ryuji; Yomoda, Satoshi

PATENT ASSIGNEE(S):

Kanebo, Limited, Japan PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

INVENTOR(S):

Patent Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	WO 2001084948	A1	20011115	WO 2001-JP3827	20010508
	W: AU, CN, JP,	KR, US			
	RW: AT, BE, CH,	CY, DE	, DK, ES, F	I, FR, GB, GR, IE,	IT, LU, MC, NL,
	PT, SE, TR				-
	EP 1281323	A1	20030205	EP 2001-926140	20010508
	R: AT, BE, CH,	DE, DK	, ES, FR, GI	B, GR, IT, LI, LU,	NL, SE, MC, PT,
	IE, FI, CY,	TR.			
	AU 782727	B2	20050825	AU 2001-52689	20010508
	US 2003144179	A1	20030731	US 2002-258420	20021022
]	PRIORITY APPLN. INFO.:			JP 2000-138373	A 20000511
				WO 2001-JP3827	W 20010508

AB Compns. containing peptide(s) and electrolyte excretion promoter(s) characterized by comprising a peptide or a peptide mixture, which is obtained by digesting casein with a protease such as trypsin and has angiotensin converting enzyme-inhibiting activity, and ≥1 electrolyte excretion promoters selected from chitosan, alginic acid, and salts thereof. Owing to the synergistic effects of the components, these compns. exert an excellent effect of inhibiting increase in blood pressure, and does not have

bitterness taste and pungency associated with the peptides.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:480808 CAPLUS

DOCUMENT NUMBER: 135:106702

TITLE: Effects of chloride on stroke incidence and blood

pressure in salt-sensitive hypertensive rats

AUTHOR(S): Katoh, Seiji

CORPORATE SOURCE: Second Dep. Med. Biochem., Sch. Med., Ehime Univ.,

Shigenobu-cho, Onsen-gun, Ehime, 791-0295, Japan

SOURCE: Nippon Eiyo, Shokuryo Gakkaishi (2001), 54(3), 147-153

CODEN: NESGDC; ISSN: 0287-3516 Nippon Eiyo, Shokuryo Gakkai

DOCUMENT TYPE: Journal LANGUAGE: Japanese

PUBLISHER:

AB The effects of chloride on stroke incidence and blood pressure were examined in salt-sensitive hypertensive rats. Stroke-prone spontaneously hypertensive rats (SHRSP) and Dahl

salt-sensitive (DahlS) rats were fed on a 3% NaCl diet with or without 5% chitosan or 5% alginate, which have potent inhibitory

effects on intestinal absorption of chloride and sodium, resp. In SHRSP,

the chitosan diet prevented stroke efficiently, whereas the

alginate diet had no significant preventive effect. In DahlS rats,

although the chitosan diet attenuated salt-accelerated hypertension, the alginate diet had no effect on blood pressure. In DahlS rats, 1 h of feeding on the high-salt

diet increased the serum chloride concentration and stimulated the activity of angiotensin converting enzyme (ACE), whereas no changes were seen in the

group given the high-salt diet with chitosan. These results suggest that chloride induces stroke and hypertension in salt-sensitive hypertensive rats, concomitant with stimulation of

serum ACE activity.

L7 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:731496 CAPLUS

DOCUMENT NUMBER: 133:313629

TITLE: Chitosan soft capsules and their manufacture INVENTOR(S): Sato, Toshio; Mizushima, Hiroshi; Kosaka, Yasuo

PATENT ASSIGNEE(S): LTT Inst. Co., Ltd., Japan; V-Tech Corp.

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000290187	Α	20001017	JP 1999-98146	19990405
US 6190694	B1	20010220	US 1999-416183	19991011
CA 2291286	A1	20001005	CA 2000-2291286	19991129
PRIORITY APPLN. INFO.:			JP 1999-98146 A	19990405
AB The invention relat	es to a	a process for	making soft capsules	containing
chitosan as a main	ingred:	ient, wherein	the process includes	

chitosan as a main ingredient, wherein the process includes powdering chitosan, mixing the chitosan powder with organic acid, organic acid salt, oil, and emulsifier to obtain a gel suspension, and encapsulating the gel suspension. Soft capsules were formulated from squid chitosan 207, glutamic acid 103.5, sodium glutamate 207, soybean oil, monoglyceride 155.25, beeswax 155.25 g, and tested for their solubility in artificial intestinal juice and blood pressure-lowering effect in hypertensive patients.

L7 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 1995:514800 CAPLUS

DOCUMENT NUMBER:

TITLE: AUTHOR (S): Antihypertensive effect of chitosan in rats and humans Kato, Hideo; Taguchi, Tomoko; Okuda, Hiromichi; Kondo,

Mari; Takara, Minoru

CORPORATE SOURCE:

Department of Food and Nutrition, Hiroshima Women's

College, Onsen, 791-02, Japan

SOURCE:

Wakan Iyakugaku Zasshi (1994), 11(3), 198-205

CODEN: WIZAEL; ISSN: 1340-6302

PUBLISHER:

Wakan Iyaku Gakkai

DOCUMENT TYPE:

Journal

LANGUAGE: English AB

The effect of dietary fibers on the hypertensive action of NaCl was examined by administration of a high salt diet containing alginic acid, which readily absorbs cations, or chitosan, which readily absorbs anions, to normotensive rats and SHRSP for 40 days. Addition of alginic acid to the high salt diet increased the amount of sodium and the addition of chitosan increased the amount of chloride in the feces of normotensive rats. Addition of chitosan to the high salt diet resulted in a significantly lower systolic blood pressure than addition of alginic acid in both groups. Serum ACE was significantly reduced in SHRSP fed with the high salt diet containing chitosan. Serum chloride ion was lower in the normotensive rats fed with the high salt diet containing chitosan than alginic acid. In humans, the high salt diet increased the systolic blood pressure and serum ACE activity and chloride concentration after 1 h. and oral administration of chitosan inhibited these increases. It also reduced the serum bicarbonate level after 1 h, but did not affect the sodium concentration Serum ACE in humans was found to be stimulated by chlorideion. These results suggest that chitosan prevents increase in the systolic blood pressure of humans induced by high salt intake by inhibiting intestinal absorption of chloride, an activator of ACE. Based on these results, the relationship between serum ACE and chloride concentration was discussed.

ANSWER 11 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1994:400906 CAPLUS

DOCUMENT NUMBER:

121:906

TITLE:

chitosan as antihypertensive Kato, Hideo; Okuda, Hiromichi

PATENT ASSIGNEE(S):

Suisancho Chokan, Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

INVENTOR (S):

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06056674	 А	19940301	JP 1992-258422	19920928
JP 2507907	B2	19960619		•
PRIORITY APPLN. INFO.:			JP 1992-147759	A1 19920608

Chitosan alone or added to feed or food promoted the chlorine excretion in feces and lowered the blood pressure in spontaneous hypertensive rats and male subjects given a high-salt diet.

L11 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:627293 CAPLUS

DOCUMENT NUMBER: 135:168161

TITLE: Chitosan succinate sodium salt production method

INVENTOR(S): Komarov, B. A.; Albulov, A. I.; Belov, M. Yu.;

Samuylenko, A. Ya.; Fomenko, A. S.; Shinkarev, S. M.;

Trunov, A. M.

PATENT ASSIGNEE(S): Vserossiiskii Nauchno-Issledovatel'skii i

Tekhnologicheskii Institut Biologicheskoi

Promyshlennosti, Russia

SOURCE: Russ., No pp. given

CODEN: RUXXE7

DOCUMENT TYPE: Patent LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2144040	C1	20000110	RU 1998-106316	19980407
PRIORITY APPLN. INFO.:			RU 1998-106316	19980407

AB Succinyl chitosan sodium salt is prepared by (1) preparing homogeneous chitosan solution, (2) separating chitosan by adding NaOH, (3) reacting the obtained chitosan suspension with succinic applydride (4) neutralizing the reaction mixture and (5) separating

succinic anhydride, (4) neutralizing the reaction mixture, and (5) separating the

reaction product by drying. The method is characterized by the alkali treatment of chitosan until average pH reaches 6.9-7.5, chitosan is subsequently amorphized by exposing its aqueous suspension to cavitation or shearing, succinic anhydride is used in the form of powder with particle size no larger than 100 mcm, neutralization is carried out with alkali solution, and final product is isolated by

spray or sublimation drying. This method is simple and does not involve environmentally unfriendly organic solvents.

L11 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:458758 CAPLUS

DOCUMENT NUMBER: 135:60476

TITLE: Food additives containing ascorbic acid chitosan

complexes, their manufacture, and food containing them

INVENTOR(S): Hashimoto, Kunihiko; Onishi, Nobukazu

PATENT ASSIGNEE(S): Nishikawa Rubber Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001169750	Α	20010626	JP 1999-376807	19991217
JP 3476130	B2	20031210		

PRIORITY APPLN. INFO.: JP 1999-376807 19991217

AB Food additives, which control lipid metabolism and stimulate immunity, are

manufactured by (1) dissolving chitin-chitosan or chitosan
with deacetylation degree ≥75% in 0.1-5% organic acid buffer at

0.05-3%, (2) adjusting the solution at pH 5.0-7.5 upon addition of aqueous alkaline  $\cdot$ 

solns., (3) adding ≥1 compound selected from ascorbic acid, ascorbic acid, 2-O-phosphate, ascorbic acid 2-O-glucoside, and their salts, preferably their dried products, to the solution at 3-6 mol per 1 kg (dry weight) chitosans, and then (4) pulverizing the solution

by freeze-drying and/or spray-drying at a

lower temperature Foods manufactured by adding the additives to powder or

them to ligs. are also claimed. Chitosan with deacetylation

degree 85% was dissolved in an aqueous solution of glutamic acid and the solution

was treated with NaOH solution to adjust pH at 6.0. One of the above ascorbic acids was added to the solution and the mixture was freeze-dried to give powder. Hypocholesteremic effect of the powder was shown in hyperlipemic patients. The powder also increased IgG1 and IgG2 in Japanese black calves and Holstein calves.

L11 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:19335 CAPLUS

DOCUMENT NUMBER: 132:65671

TITLE: Manufacture of quaternary ammonium salts of chitosan INVENTOR(S): Tanaka, Yoshiaki; Okuno, Hiroshi; Tsutsui, Kiyoko

PATENT ASSIGNEE(S): Lignite Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 8

Jpn. Kokai Tokkyo Koho, 8 pp. CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 2000001504 A 20000107 JP 1998-169826 19980617
PRIORITY APPLN. INFO.: JP 1998-169826 19980617

AB The salts are manufactured by quaternizing a chitosan compound in a solvent using alkyl iodide to partially convert the amino group of chitosan to trialkylated iodide salts, deionizing the reaction with ion-exchange resin, exchanging the I ions with Br or Cl ions and spray drying.

L11 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:132794 CAPLUS

DOCUMENT NUMBER: 128:235074

TITLE: Design of microencapsulated chitosan microspheres for

colonic drug delivery

AUTHOR(S): Lorenzo-Lamosa, M. L.; Remunan-Lopez, C.; Vila-Jato,

J. L.; Alonso, M. J.

CORPORATE SOURCE: Faculty of Pharmacy, Department of Pharmaceutical

Technology, University of Santiago de Compostela,

Santiago de Compostela, 15706, Spain

SOURCE: Journal of Controlled Release (1998), 52(1,2), 109-118

CODEN: JCREEC; ISSN: 0168-3659

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Among the different approaches to achieve colon-selective drug delivery, the use of polymers, specifically biodegraded by colonic bacteria, holds great promise. In this work a new system which combines specific biodegradability and pH-dependent release is presented. The system consists of chitosan (CS) microcores entrapped within acrylic microspheres. Sodium diclofenac (SD), used as a model drug, was efficiently entrapped within CS microcores using spraydrying and then microencapsulated into Eudragit L-100 and Eudragit S-100 using an oil-in-oil solvent evaporation method. The size of the CS microcores was small (1.8-2.9 μm) and they were efficiently encapsulated within Eudragit microspheres (size between 152 and 223 μm) forming a multireservoir system. Even though CS dissolves very fast in acidic media, at pH 7.4, SD release from CS microcores was delayed, the release rate being adjustable (50 dissolved within 30-120 min) by changing

the CS mol. weight (MW) or the type of CS salt. Furthermore, by coating the CS microcores with Eudragit, perfect pH-dependent release profiles were attained. No release was observed at acidic pHs, however, when reaching the Eudragit pH solubility, a continuous release for a variable time (8-12 h) was achieved. A combined mechanism of release is proposed, which considers the dissoln. of the Eudragit coating, the swelling of the CS microcores and the dissoln. of SD and its further diffusion through the CS gel cores. In addition, IR (IR) spectra revealed that there was an ionic interaction between the amine groups of CS and the carboxyl groups of Eudragit, which provided the system with a new element for controlling the release. In conclusion, this work presents new approaches for the modification of CS as well as a new system with a great potential for colonic drug delivery.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION · NUMBER: 1992:20052 CAPLUS

DOCUMENT NUMBER:

116:20052

TITLE:

Whipping cream substitute powders containing chitosan

and their manufacture

INVENTOR(S): Ootani, Makoto; Tatsumi, Kyoshi

PATENT ASSIGNEE(S):

Snow Brand Milk Products Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03210147	Α	19910913	JP 1990-5986	19900112
PRIORITY APPLN. INFO.:			JP 1990-5986	19900112

AB Whipping cream substitute powders are manufactured by emulsifying oil and aq phases, mixing with chitosan solns., homogenizing, sterilizing, concentrating, and drying. The powders are whipped with H2O and the whipped cream substitutes show good shape retention, mild taste and melt smoothly in the mouth. An oil phase of hydrogenated coconut oil, hydrogenated palm kernel oil, and emulsifiers were mixed with aqueous phase containing acid casein, Ca(OH)2, phosphate salts, sucrose, powdered starch sugar, whey, and guar gum and homogenized with an aqueous solution containing

chitosan and lactic acid, sterilized, and spray-dried to manufacture a powder.

L11 ANSWER 14 OF 19 MEDLINE ON STN ACCESSION NUMBER: 2006142181 MEDLINE DOCUMENT NUMBER: PubMed ID: 16314079

TITLE: Preparation and release of salbutamol from chitosan and

chitosan co-spray dried compacts and multiparticulates.

Corrigan Deirdre O: Healy Anne Marie: Corrigan Owen I

AUTHOR: Corrigan Deirdre O; Healy Anne Marie; Corrigan Owen I CORPORATE SOURCE: School of Pharmacy and Pharmaceutical Sciences, University

of Dublin, Trinity College, Dublin, Ireland.

SOURCE: European journal of pharmaceutics and biopharmaceutics :

official journal of Arbeitsgemeinschaft fur Pharmazeutische

Verfahrenstechnik e.V, (2006 Apr) Vol. 62, No. 3, pp.

295-305. Electronic Publication: 2005-11-28.

Journal code: 9109778. ISSN: 0939-6411.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200605

ENTRY DATE: Entered STN: 14 Mar 2006

Last Updated on STN: 31 May 2006 Entered Medline: 30 May 2006

AB Chitosan microparticulates were prepared by spray drying from aqueous media containing hydrochloric acid or acetic acid. The medium affected the morphology and degree of acetylation of chitosan, the presence of acetic acid resulting in increased acetylation of the polymer during processing. Co-spray drying salbutamol sulphate/chitosan systems with the crosslinking agent formaldehyde had no detectable effect on particle morphology. However, with increasing salbutamol loading particles became less spherical, taking on a collapsed appearance. Spray dried chitosan-salbutamol sulphate microparticulates were X-ray amorphous. Chitosan-salbutamol sulphate composites were compressed into discs to quantify drug release and showed delayed release of salbutamol sulphate. The general power law equation fitted the data better than the t0.5, mono- or bi-exponential models and gave n indices greater than 0.5, i.e. in the range 0.53-0.71. Crosslinking did not dramatically alter the drug release behaviour. Both crosslinked and non-crosslinked composites swelled during release, the former to the greater extent. The release data for crosslinked composites gave slightly higher n values than the corresponding non-crosslinked composites, consistent with the increased swelling of these systems. Release studies were also conducted on the microparticulates. Because of the small particle size and large surface area present, the release of the highly soluble drug salt was extremely rapid (> 90% release in 5 min). Twin impinger analysis indicated good in vitro deposition of the microparticulates and potential for pulmonary delivery.

L11 ANSWER 15 OF 19 MEDLINE On STN ACCESSION NUMBER: 2004039752 MEDLINE

DOCUMENT NUMBER:

PubMed ID: 14738587

TITLE:

Chitosan salts as nasal sustained delivery systems for

peptidic drugs.

AUTHOR:

Cerchiara T; Luppi B; Bigucci F; Zecchi V

CORPORATE SOURCE:

Department of Pharmaceutical Sciences, Via S. Donato 19/2,

40127 Bologna, Italy.

SOURCE:

The Journal of pharmacy and pharmacology, (2003 Dec) Vol.

55, No. 12, pp. 1623-7.

Journal code: 0376363. ISSN: 0022-3573.

PUB. COUNTRY:

England: United Kingdom

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200403

ENTRY DATE:

Entered STN: 24 Jan 2004

Last Updated on STN: 31 Mar 2004 Entered Medline: 30 Mar 2004

AB The aim of this study was to describe a sustained drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the physical mixtures at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by chitosan salts and, in particular, chitosan hydrochloride provided the lowest release of vancomycin.

L11 ANSWER 16 OF 19 MEDLINE ON STN ACCESSION NUMBER: 2003477091 MEDLINE DOCUMENT NUMBER: PubMed ID: 14553988 TITLE: Alkaline chitosan solutions.

AUTHOR: Muzzarelli Corrado; Tosi Giorgio; Francescangeli Oriano;

Muzzarelli Riccardo A A

CORPORATE SOURCE: Institute of Biochemistry, Faculty of Medicine, Polytechnic

University of Marche, Via Ranieri 67, IT-60100 Ancona,

Italy.

SOURCE: Carbohydrate research, (2003 Oct 10) Vol. 338, No. 21, pp.

2247-55.

Journal code: 0043535. ISSN: 0008-6215.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200407

ENTRY DATE: Entered STN: 15 Oct 2003

Last Updated on STN: 29 Jul 2004 Entered Medline: 28 Jul 2004

AB Rigid and transparent hydrogels were obtained upon pouring chitosan salt solutions into saturated ammonium hydrogen carbonate. Incubation at 20 degrees C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO(2)(-)NH(4)(+) a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, molecular sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate and lactate salts. Their hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solutions at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 degrees C). Citrate could cross-link chitosan and impart insolubility to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH(4)HCO(3) treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solutions of mixed chitosan carbamate and alginate were spray-dried at 115 degrees C to manufacture chitosan-alginate microspheres having prevailing diameter approx 2 micron.

L11 ANSWER 17 OF 19 MEDLINE on STN ACCESSION NUMBER: 2003320948 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12851047
TITLE: Controlled release

Controlled release of vancomycin from freeze-dried

chitosan salts coated with different

fatty acids by spray-drying.

AUTHOR: Cerchiara T; Luppi B; Bigucci F; Petrachi M; Orienti I;

Zecchi V

CORPORATE SOURCE: University of Bologna, Department of Pharmaceutical

Sciences, Via S. Donato 19/2, 40127 Bologna, Italy.

SOURCE: Journal of microencapsulation, (2003 Jul-Aug) Vol. 20, No.

4, pp. 473-8.

Journal code: 8500513. ISSN: 0265-2048.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200311

ENTRY DATE: Entered STN: 10 Jul 2003

Last Updated on STN: 18 Dec 2003 Entered Medline: 26 Nov 2003

AB The aim of this study was to describe a controlled drug release system based on chitosan salts for vancomycin hydrochloride

delivery. Chitosan aspartate (CH-Asp), chitosan glutamate (CH-Glu) and chitosan hydrochloride (CH-HCl) were prepared by freeze-drying and coated with stearic, palmitic, myristic and lauric acids by spray-drying technique. Vancomycin hydrochloride was used as a peptidic model drug whose sustained release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the freeze-dried and spray-dried systems at pH 2.0 and 7.4.

L11 ANSWER 18 OF 19 MEDLINE ON STN ACCESSION NUMBER: 2002257824 MEDLINE DOCUMENT NUMBER: PubMed ID: 11996810

TITLE: Influence of different chitosan salts on the release of

sodium diclofenac in colon-specific delivery.

AUTHOR: Orienti I; Cerchiara T; Luppi B; Bigucci F; Zuccari G;

Zecchi V

CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of

Bologna, Via S. Donato 19/2, 40127, Bologna, Italy...

orienti@biocfarm.unibo.it

SOURCE: International journal of pharmaceutics, (2002 May 15) Vol.

238, No. 1-2, pp. 51-9.

Journal code: 7804127. ISSN: 0378-5173.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200206

ENTRY DATE: Entered STN: 9 May 2002

Last Updated on STN: 28 Jun 2002 Entered Medline: 27 Jun 2002

AB Chitosan (CH) was dissolved in aqueous solutions containing aspartic, glutamic, hydrochloric, lactic and citric acids to obtain different chitosan salts. Chitosan salts were collected from the solutions by spray-

drying and the powders obtained were mixed with Sodium Diclofenac (SD), taken as a model anti-inflammatory drug. This study evaluated in vitro the influence of acid type on the release behaviour of SD from the physical mixture during gastrointestinal transit. The physical mixture of the chitosan salts with SD provided slower drug

release than the pure drug both in acidic and alkaline pHs. In addition, the interaction with beta-glucosidase at pH 7.0 enhanced the release rate. Among the CH salts used, glutamic and aspartic salts

L11 ANSWER 19 OF 19 MEDLINE ON STN ACCESSION NUMBER: 1998350558 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9685941

provided the best control of release.

TITLE: Design of microencapsulated chitosan microspheres for

colonic drug delivery.

AUTHOR: Lorenzo-Lamosa M L; Remunan-Lopez C; Vila-Jato J L; Alonso

ΜJ

CORPORATE SOURCE: Department of Pharmaceutical Technology, Faculty of

Pharmacy, University of Santiago de Compostela, Spain.
Journal of controlled release: official journal of the

SOURCE: Journal of controlled release : official journal of the Controlled Release Society, (1998 Mar 2) Vol. 52, No. 1-2,

pp. 109-18.

Journal code: 8607908. ISSN: 0168-3659.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199808

ENTRY DATE:

Entered STN: 20 Aug 1998

Last Updated on STN: 20 Aug 1998 Entered Medline: 13 Aug 1998

AΒ Among the different approaches to achieve colon-selective drug delivery, the use of polymers, specifically biodegraded by colonic bacteria, holds great promise. In this work a new system which combines specific biodegradability and pH-dependent release is presented. The system consists of chitosan (CS) microcores entrapped within acrylic microspheres. Sodium diclofenac (SD), used as a model drug, was efficiently entrapped within CS microcores using spraydrying and then microencapsulated into Eudragit L-100 and Eudragit S-100 using an oil-in-oil solvent evaporation method. The size of the CS microcores was small (1.8-2.9 microns) and they were encapsulated within Eudragit microspheres (size between 152 and 233 microns) forming a multireservoir system. Even though CS dissolves very fast in acidic media, at pH 7.4, SD release from CS microcores was delayed, the release rate being adjustable (50% dissolved within 30-120 min) by changing the CS molecular weight (MW) or the type of CS salt. Furthermore, by coating the CS microcores with Eudragit, perfect pH-dependent release profiles were attained. No release was observed at acidic pHs, however, when reaching the Eudragit pH solubility, a continuous release for a variable time (8-12 h) was achieved. A combined mechanism of release is proposed, which considers the dissolution of the Eudragit coating, the swelling of the CS microcores and the dissolution of SD and its further diffusion through the CS gel cores. In addition, infrared (IR) spectra revealed that there was an ionic interaction between the amine groups of CS and the carboxyl groups of Eudragit, which provided the system with a new element for controlling the release. In conclusion, this work presents new approaches for the modification of CS as well as a new system with a great potential for colonic drug delivery.

L11 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:224292 CAPLUS

DOCUMENT NUMBER: 145:195416

TITLE: Preparation and release of salbutamol from chitosan

and chitosan co-spray dried compacts and

multiparticulates

AUTHOR(S): Corrigan, Deirdre O.; Healy, Anne Marie; Corrigan,

Owen I.

CORPORATE SOURCE: School of Pharmacy and Pharmaceutical Sciences,

Trinity College, University of Dublin, Dublin, Ire. European Journal of Pharmaceutics and Biopharmaceutics

SOURCE: European Journal of Pharmaceutics and (2006), 62(3), 295-305

CODEN: EJPBEL; ISSN: 0939-6411

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Chitosan microparticulates were prepared by spray

drying from aqueous media containing hydrochloric acid or acetic acid.

The medium affected the morphol. and degree of acetylation of chitosan, the presence of acetic acid resulting in increased acetylation of the polymer during processing. Co-spray

drying salbutamol 'sulfate/chitosan systems with the

crosslinking agent formaldehyde had no detectable effect on particle morphol. However, with increasing salbutamol loading particles became

less spherical, taking on a collapsed appearance. Spray dried chitosan-salbutamol sulfate microparticulates were X-ray amorphous. Chitosan-salbutamol sulfate composites were

compressed into disks to quantify drug release and showed delayed release of salbutamol sulfate. The general power law equation fitted the data better than the t 0.5, mono- or bi-exponential models and gave n indexes greater than 0.5, i.e. in the range 0.53-0.71. Crosslinking did not dramatically alter the drug release behavior. Both crosslinked and

non-crosslinked composites swelled during release, the former to the greater extent. The release data for crosslinked composites gave slightly higher n values than the corresponding non-crosslinked composites, consistent with the increased swelling of those systems. Poleage studies

consistent with the increased swelling of these systems. Release studies were also conducted on the microparticulates. Because of the small particle size and large surface area present, the release of the highly soluble drug salt was extremely rapid (>90% release in 5 min).

Twin impinger anal. indicated good in vitro deposition of the

microparticulates and potential for pulmonary delivery.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1138507 CAPLUS

TITLE: Manufacturing method of dried corvina using medical

plant

INVENTOR(S): Kim, Sung Ho

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	· KIND	DATE	APPLICATION NO.	DATE
KR 2003044157	Α	20030609	KR 2001-74805	20011129
PRIORITY APPLN. INFO.:			KR 2001-74805	20011129
10 DIDDOG - 11 1				4 1

AB PURPOSE: Provided is a manufacturing method of a dried corvina by using a medical plant and sun-dried salt removed from poisonous

substances, thereby increasing human health. CONSTITUTION: A manufacturing method of a dried corvina using a medical plant comprises the steps of: removing poisonous substances from sun-dried salt using reeds, and charcoal or silver; adding Laminaria salt and bamboo salt to the sun-dried salt; dipping medicinal plants in charcoal solution, pyroligneous solution, or reed root solution for 2 hours to remove poisonous substances, followed by washing and dewatering them; pulverizing or extracting the medicinal plants and adding the salt prepared above, Cordyceps militaris powder or chitosan powder thereto; spraying the mixture thereof to a corvina and leaving it for several days; washing the corvina with charcoal solution then drying it.

L11 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:829916 CAPLUS

DOCUMENT NUMBER: 142:448486

TITLE: Structural characteristics and sorption ability of

chitosan microgranules

AUTHOR(S): Adamiec, Janusz; Modrzejewska, Zofia

CORPORATE SOURCE: Wydz. Inz. Procesowej i Ochrony Srodowiska, Politech.

Lodzka, Lodz, 90-924, Pol.

SOURCE: Inzynieria Chemiczna i Procesowa (2004), 25(3/1),

543-548

CODEN: ICPRDT; ISSN: 0208-6425

PUBLISHER: Oficyna Wydawnicza Politechniki Wroclawskiej

DOCUMENT TYPE: Journal LANGUAGE: Polish

AB Microgranules were formed by means of spray drying of two chitosan salts: acetate and ascorbate. To reduce solubility, glutaraldehyde and sodium triphosphate were added to the solution Dry microgranules as a product of different chemical composition had different structural characteristics: shape, size, d., and volume, and area of pores. Sorption ability of these microgranules was investigated by measuring the sorption of benzene and carbon dioxide (in a highly-vacuum sorptive instrument).

L11 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:77658 CAPLUS

DOCUMENT NUMBER: 141:42688

TITLE: Chitosan salts as nasal sustained delivery systems for

peptidic drugs

AUTHOR(S): Cerchiara, T.; Luppi, B.; Bigucci, F.; Zecchi, V.

CORPORATE SOURCE: Department of Pharmaceutical Sciences, Bologna, 40127,

Italy

SOURCE: Journal of Pharmacy and Pharmacology (2003), 55(12),

1623-1627

CODEN: JPPMAB; ISSN: 0022-3573

PUBLISHER: Pharmaceutical Press

DOCUMENT TYPE: Journal LANGUAGE: English

AB The aim of this study was to describe a sustained drug release system

based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin

hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This

in-vitro study evaluated the influence of chitosan salts

on the release behavior of vancomycin hydrochloride from the phys. mixts. at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by

chitosan salts and, in particular, chitosan

hydrochloride provided the lowest release of vancomycin.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:795160 CAPLUS

DOCUMENT NUMBER: 140:43678

TITLE: Alkaline chitosan solutions

AUTHOR(S): Muzzarelli, Corrado; Tosi, Giorgio; Francescangeli,

Oriano; Muzzarelli, Riccardo A. A.

CORPORATE SOURCE: Faculty of Medicine, Institute of Biochemistry,

Polytechnic University of Marche, Ancona, IT-60100,

Italy

SOURCE: Carbohydrate Research (2003), 338(21), 2247-2255

CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

Rigid and transparent hydrogels were obtained upon pouring chitosan salt solns. into saturated ammonium hydrogen carbonate. Incubation at 20 °C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO2-NH4+ a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, mol. sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate, and lactate salts. Their hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solns. at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 °C). Citrate could cross-link chitosan and impart insoly. to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH4HCO3 treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solns. of mixed chitosan carbamate and alginate were spray-dried at 115 °C to manufacture chitosan-alginate

microspheres having prevailing diameter approx 2 μ.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:566810 CAPLUS

DOCUMENT NUMBER: 140:64869

TITLE: Controlled release of vancomycin from freeze-dried

chitosan salts coated with different

fatty acids by spray-drying

AUTHOR(S): Cerchiara, T.; Luppi, B.; Bigucci, F.; Petrachi, M.;

Orienti, I.; Zecchi, V.

CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of

Bologna, Bologna, 40127, Italy

SOURCE: Journal of Microencapsulation (2003), 20(4), 473-478

CODEN: JOMIEF; ISSN: 0265-2048

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB The aim of this study was to describe a controlled drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by freeze drying and coated with stearic, palmitic, myristic and lauric acids by spray -drying technique. Vancomycin hydrochloride was used as a peptidic model drug whose sustained release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts

on the release behavior of vancomycin hydrochloride from the freeze-dried and spray-dried systems at pH 2.0 and 7.4.

REFERENCE COUNT:

11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:343408 CAPLUS

DOCUMENT NUMBER:

136:324481

TITLE:

Manufacture of herb salt from herbs cultured using

chitosan spray

INVENTOR(S):

Omoto, Fujiko

PATENT ASSIGNEE(S):

Apio Club K. K., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND APPLICATION NO. DATE DATE --------------20020508 JP 2002125616 Α JP 2000-328479 20001027 PRIORITY APPLN. INFO.: JP 2000-328479 20001027

Herb salt is manufactured by cultivating herbs while spraying aqueous chitosan solution to leaves, cropping fruits, leaves, and stems, shade- or sun-drying them, cutting them, and mixing them with NaCl. Spraying rosemary with chitosan solution reduced nitrate concentration and increased Brix.

L11 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:335241 CAPLUS

DOCUMENT NUMBER:

138:175642

TITLE:

Influence of different chitosan salts on the release

of sodium diclofenac in colon-specific delivery

AUTHOR (S):

Orienti, I.; Cerchiara, T.; Luppi, B.; Bigucci, F.;

Zuccari, G.; Zecchi, V.

CORPORATE SOURCE:

Department of Pharmaceutical Sciences, University of

Bologna, Bologna, 40127, Italy

SOURCE:

International Journal of Pharmaceutics (2002),

238(1-2), 51-59

CODEN: IJPHDE; ISSN: 0378-5173

PUBLISHER:

Elsevier Science B.V.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Chitosan (CH) was dissolved in aqueous solns. containing aspartic, glutamic, hydrochloric, lactic and citric acids to obtain different chitosan salts. Chitosan salts were collected from the solns. by spray-drying and the powders obtained were mixed with Sodium Diclofenac (SD), taken as a model

anti-inflammatory drug. This study evaluated in vitro the influence of acid type on the release behavior of SD from the phys. mixture during gastrointestinal transit. The phys. mixture of the chitosan salts with SD provided slower drug release than the pure drug both in acidic and alkaline pHs. In addition, the interaction with  $\beta$ -glucosidase at pH 7.0 enhanced the release rate. Among the chitosan salts used, glutamic and aspartic salts provided the

best control of release.

REFERENCE COUNT:

THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS 39 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L20 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:999284 CAPLUS

DOCUMENT NUMBER: 142:279143

TITLE: Process for producing salted fish with seaweeds

powder, mugwort extract, green tea extract and

chitosan solution

INVENTOR(S): Kim, Deuk Gi

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
· KR 2003094199	Α	20031211	KR 2003-83704	20031124
PRIORITY APPLN. INFO.:			KR 2003-83704	20031124

AB A process for producing a salted fish with seaweeds powder, a mugwort extract, a green tea extract and a chitosan solution is provided, thereby preventing adult diseases, removing fishy smell, and preserving freshness of the fish for a long time. The process comprises the steps of: washing and removing internal organs of fish; spraying salts on the fish; spraying seaweeds powder on the surface of the fish; maturing the salted and seaweeds powder sprayed fish; and packaging the matured fish under vacuum condition, wherein the seaweeds include tangleweed, brown seaweed and brown algae; the matured fish may be further dipped in mugwort or green tea extract; the matured fish may be further coated with a chitosan solution

L20 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:869406 CAPLUS

DOCUMENT NUMBER: 142:154620

TITLE: Manufacturing method of new functional salt and

development of use thereof

INVENTOR(S): Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	KR 2001000706	A	20010105	KR 2000-60499	20001006
PRIC	RITY APPLN. INFO.:			KR 2000-60499	20001006
AB A manufacturing method of new functional salt and development of use					
	thereof are provided, which has effects of decreasing blood pressure and				
	antibiosis, by stirring salt and $lpha$ - chitosan				
	after dissolving salt to be 20-23% of the saturated solution New				
	functional salt contains 0.1-5% of chitosan dissolved				
	in a salt solution and chitosan is dried and crystallized				
	$\alpha$ - chitosan is obtained from shells of crab and shrimp and $\beta$ - chitosan is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a				
	chloride ion of salt. The content of the chitosan is				
	0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a				

chitosan salt solution For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan.

L20 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:658743 CAPLUS

DOCUMENT NUMBER: 137:190771

TITLE: Chitosan-containing solution for prophylactic

treatment of teats of lactating animals

INVENTOR(S): Hellman, Asa; Mathisen, Torbjorn

PATENT ASSIGNEE(S): Swed.

SOURCE: U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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	PATENT NO.			KIN	D	DATE			APPL	ICAT	ION :	NO.		D	ATE			
	US	2002	 1199	 49		A1	-	2002	0829		US 2	001-	 7917.	39		2	0010	 226
	CA	2439	465			A1		2002	0906		CA 2	002-	2439	465		2	0020	225
	WO	2002	0679.	52		A1		2002	0906		WO 2	002-	SE31	8		2	0020	225
	WO	2002	0679	52		A8		2004	0521									
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
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								IN,										
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	NZ,	OM,	PH,
			ΡL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
			UA,	UG,	US,	UΖ,	VN,	YU,	ZA,	ZM,	ZW							
		RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
			KG,	ΚZ,	MD,	RU,	TJ,	TM,	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB,
			GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,
			GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG							
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			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR						
		2002															00202	225
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										,	WO 2	002-	SE31	В	7	V 20	00202	225
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AB An aqueous solution for prophylactic treatment of teats of lactating cows comprises as a first component at least partially deacetylated chitosan or its acid addition salt in a concentration of up to about 2% by weight of chitosan. A

pH solution of the solution is adjusted to about 4-6.8 by the addition of a mineral

or organic acid. The first component has a mol. weight such that the viscosity of the solution is < 50 mPas. The aqueous solution further comprises a second component selected from heparin, heparan sulfate, and dextran sulfate, the weight ratio between the first and second components being from about 10:1 to about 100:1. For example, 5.8 g 87% glycerol was added to 95 mL of water and 0.3 mL acetic acid (99.9%) was added to the glycerol solution under stirring until a homogeneous solution was obtained. To the solution prepared

then added 1.0 g chitosan (MW of about 80 kD, deacetylation degree 94% (Primex)) and stirring was maintained until all chitosan has been dissolved. The pH of this solution was about 5.2. The solution showed improved

stability and resulted in a viscosity lying within the preferred range and enabling easy handling in connection with the application to the teats.

L20 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:716545 CAPLUS

DOCUMENT NUMBER: 135:222846

TITLE: Salt- and drought-resistant agent for plant and its

application

INVENTOR(S): Zhao, Kefu; Cao, Ziyi; Song, Jie; Zhang, Hui; Zhao,

Yanxiu

PATENT ASSIGNEE(S): Shandong Normal University, Peop., Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	NO.	KIND	DATE	APPLICATION	NO.	DATE
CN 1290		. A	20010411	CN 1999-1124		19990930 ·
						of GA3, GA7,
GA4 and	l their K or	Na salt	s, salicylic	acid derivs	. from one $\cdot$	or
more of	Na salicyla	ate, K s	alicylate, C	a salicylate	, Me salicy	late, Et
				igosaccharide		
				r more of Ca		2 2 -
Ca (NO3)	2, Ca(Ac)2,	Ca prop	ionate, Ca b	utyrate, Ca	valerate, C	a citrate,
						acid, mineral
				can be added		
agent i	s suitable <i>f</i>	for the	crops growin	g in salty so	oil, and us	ed
to imme	rse seeds, s	spray se	edlings or m	ix with seeds	s. The age	nt
is drov	ight-resistar	nt and s	alt-resistan	t.	_	

L20 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:7489 CAPLUS

DOCUMENT NUMBER:

134:71036

TITLE:

Method for treating cotyledonous plants with

chitosan salts for improving growth

INVENTOR(S):

Heinsohn, George E.; Bjornson, August S.

PATENT ASSIGNEE(S):

DCV, Inc., USA

SOURCE:

U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 13,945,

abandoned. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6167652	B1	20010102	US 1999-237065	19990126
PRIORITY APPLN. INFO.:			US 1997-787870 B2	19970123
			US 1998-13945 B2	19980127

AB Application of a water-soluble salt of chitosan to the foliage of growing plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties enjoy an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5% weight chitosan salt using conventional agricultural equipment and techniques.

REFERENCE COUNT:

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT ACCESSION NUMBER: 2000:314503 CAPLUS

DOCUMENT NUMBER: 132:325816

TITLE: Ethanolic cosmetic preparations containing chitosan

INVENTOR(S): Panzer, Claudia; Tesmann, Holger; Wachter, Rolf

PATENT ASSIGNEE(S): Cognis Deutschland G.m.b.H., Germany

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	PATENT NO.						DATE		Ž	APP:	LICAT	ION :	NO.		D.	ATE	
						-									-		
WO	2000	0257	34		A1		2000	0511	1	ON	1999-	EP81	05		1	9991	027
	W:	JΡ,	US														
	RW:	ΑT,	BE,	CH,	CY,	DE	, DK,	ES,	FI,	FR	, GB,	GR,	IE,	IT,	LU,	MC,	NL,
		PT,	SE														
DE	1985	0734			A1		2000	0511	1	DE :	1998-	1985	0734		1	9981	104
EP	1131	040			A1		2001	0912	]	EP :	1999-	9713	03		1	9991	027
EP	1131	040			B1		2004	1215									
	R:	AT,	BE,	CH,	DE,	DK	, ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI	, RO										
ES	2235	551			Т3		2005	0701	]	ES :	1999-	9713	03		1:	9991	027
PRIORIT	Y APP	LN.	INFO	. :					I	DE :	1998-	1985	0734		A 1:	9981	104

WO 1999-EP8105 W 19991027

AB Cosmetic prepns. containing chitosan are rendered compatible with EtOH, e.g. for use in hair sprays or deodorants, by neutralizing with lactic acid, pyrrolidonecarboxylic acid, nicotinic acid, hydroxyisobutyric acid, hydroxyisovaleric acid, and their mixts. Suitable compns. contained EtOH 70-90, chitosan neutralization products 0.01-5, other auxiliaries and additives, and H2O to 100 weight%.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:519876 CAPLUS

DOCUMENT NUMBER: 129:132548

TITLE: Chitosan salts as crop yield

enhancers.

INVENTOR(S): Heinsohn, George E.; Bjornson, August S.

PATENT ASSIGNEE(S): DCV, Inc., USA

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PA'	<b>TENT</b>	NO.			KIN	D	DATE		2	APPL	ICAT	ION 3	NO.		D	ATE	
						_					<b></b>				-		
WO	9832	335			<b>A</b> 1		1998	0730	1	WO 1	998-	US13	31		1:	9980	122
	W:	AL,	AM,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CN,	CU,	CZ,	EE,	GE,	GW,
		HU,	IL,	IS,	JP,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LT,	LV,	MD,	MG,	MK,
		MN,	MX,	NO,	NZ,	PL,	RO,	RU,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	UA,
		UΖ,	VN,	ΥU,	AM,	ΑZ,	BY,	KG,	KZ,	MD,	RU,	ТJ,	TM				
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SZ,	ŪĠ,	ZW,	AT,	BE,	CH,	DE,	DK,	ES,	FI,
		FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,
		GΑ,	GN,	ML,	MR,	NE,	SN,	TD,	TG			•					
CA	2278	301			A1		1998	0730	(	CA 1:	998-	2278	301		1:	9980	122
ΑU	9862	484			Α		1998	0818	i	AU 1	998-	62484	4		1	9980	122
EΡ	9646	16			A1		1999	1222	1	EP 19	998-	9046	65		1:	9980	122
EP	9646	16			В1		2003	0102									
	R:	DE,	ES,	FR,	GB,	IT,	NL,	PT,	ΙE								

20000502 BR 1998-6926 19980122 BR 9806926 Α 20010605 JP 1998-532152 JP 2001507361 T 19980122 ES 2189133 T3 20030701 ES 1998-904665 19980122 MX 9906833 Α 20000531 MX 1999-6833 19990722 US 1997-787870 PRIORITY APPLN. INFO.: A 19970123 WO 1998-US1331 W 19980122

AB Application of a water-soluble salt of chitosan to the foliage of growing plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties have an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5 weight% chitosan salt using conventional agricultural equipment and techniques.

REFERENCE COUNT:

11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1990:212475 CAPLUS

DOCUMENT NUMBER:

112:212475

TITLE:

Chitosan salts as plant growth

regulators

INVENTOR(S):

Lewis, Robert E.

PATENT ASSIGNEE(S):

Bentech Laboratories, Inc., USA

SOURCE:

PCT Int. Appl., 52 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	ENT N	ю.			KINI	)	DATE		7	APF	PLICATION	NO.		DATE
		· <b></b> -				-							- <b>-</b>	
WO	89073	95			A1		1989	0824	1	ΜO	1989-US4	129		19890207
	W:	AU,	BR,	DK,	FI,	JP,	NO,	SU						
	RW:	AT,	BE,	CH,	DE,	FR.	GB,	IT,	LU,	NI	, SE			
AU	89319	26			Α		1989	0906	7	ΑU	1989-319	26		19890207
ZA	89012	14			Α		1989	1129	2	ZA	1989-123	L <b>4</b>		19890216
PRIORITY	APPL	N. I	NFO.	:					Ţ	US	1988-158	3227	Α	19880219
									τ	IJS	1988-251	L693	Α	19880927
									Ţ	OW	1989-US4	129	Α	19890207

AB Solns. of chitosan salts are applied to crops, in order to enhance protein content of the fruits as well as improve resistance to fungal pathogens and increase the yield. Application may be made by seed treatment, irrigation, root dip or foliar spray. A fixing agent or supplemental treatment is used for seed treatments of all but short-lived plants. Chitosan salt solns. may also be applied to crops for improving freeze protection or for seed priming. Most applications require very low mol.-weight chitosan, obtained by partial oxidative depolymn. of com. chitosan. Foliar spray with 50 ppm chitosan lactate increased the yield and protein content of rice.

L20 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1989:75976 CAPLUS

DOCUMENT NUMBER:

110:75976

TITLE: INVENTOR(S):

SOURCE:

Water-soluble chitosan

PATENT ASSIGNEE(S):

Kushino, Shigetaka; Asano, Hiroshi Nitta Gelatine Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE: FAMILY ACC. NUM. COUNT:

1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63225602	A	19880920	JP 1987-59229	19870313
PRIORITY APPLN. INFO.:			JP 1987-59229 ·	19870313

Water-soluble chitosan (I), useful as protein coaqulant for medicines and foods, and hair prepns. (no data), was prepared by dehydrating aqueous solns. of salts of I (obtained by reaction of I and acids), then pulverized. Thus, 20 g powdered I was dispersed in 940 mL water, treated with 40 mL 50% aqueous lactic acid to give 2% aqueous solution of I salt, which was evaporated under reduced pressure to 10% concentration, then spray-dried with air at 175° to give water-soluble powdered I. When the powder 15.0 g was added to 100 mL water, it dissolved immediately to give a solution with high concentration

L20 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:572265 CAPLUS

DOCUMENT NUMBER: 87:172265

TITLE: Studies on the utilization of crab shell waste -

chitosan as a coagulating agent

Fujita, Takao; Yamauchi, Takafumi; Yanagisawa, Ikuko; AUTHOR (S):

Hiroi, Osamu

CORPORATE SOURCE: Cent. Res. Lab., Nippon Suisan Co., Ltd., Tokyo, Japan

SOURCE: Nippon Suisan Kabushiki Kaisha Chuo Kenkyusho Hokoku

(1976), 11, 49-55

CODEN: NSKHA2; ISSN: 0369-5735

DOCUMENT TYPE: Journal LANGUAGE: Japanese

HCHO was sprayed on powdered chitin prepared from king crab shell to obtain chitosan salt containing H2O 10 and HCHO 18%, which was used for coagulation of clay suspension, wastewater from processing of ground fish meat, and activated sludge. In the coagulation test of clay suspension with 0.1-20 ppm chitosan, the coagulation and

settling of clay particles were accelerated with increasing chitosan salt. The chitosan salt

also had good coagulation effect for wastewater from ground fish meat processing and activated sludge.

L26 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:869406 CAPLUS

DOCUMENT NUMBER: 142:154620

TITLE: Manufacturing method of new functional salt and

development of use thereof

INVENTOR(S): Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S):

S. Korea

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

SOURCE:

Patent Korean

LANGUAGE: Ko FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND ·	DATE	APPLICATION NO.	DATE
KR 2001000706	A	20010105	KR 2000-60499	20001006
PRIORITY APPLN. INFO.:			KR 2000-60499	20001006

AB A manufacturing method of new functional salt and development of use thereof are

provided, which has effects of decreasing blood pressure and antibiosis, by stirring salt and  $\alpha$ -chitosan after dissolving salt to be 20-23% of the saturated solution New functional salt contains 0.1-5%

of chitosan dissolved in a salt solution and chitosan is dried and crystallized  $\alpha\text{-chitosan}$  is obtained from shells of crab and shrimp and  $\beta\text{-chitosan}$  is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a chloride ion of salt. The content of the chitosan is 0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a chitosan salt solution. For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan.

L31 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:846323 CAPLUS

DOCUMENT NUMBER: 142:24852

TITLE: Chitosan containing

composition for reducing toxicity of

anticancer agent

INVENTOR(S): Chon, Dong Won; Sung, Yong Kil

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korea, No pp. given

CODEN: KRXXFC

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE -----\_\_\_\_\_\_ KR 173726 B1 19990201 KR 1995-30567 19950919 PRIORITY APPLN. INFO.: KR 1995-30567 19950919 A pharmaceutical composition containing aqueous chitosan as an active

component for reducing toxicity of an anticancer drug and improving anticancer effect is

provided which can be effectively used as a safener to an anticancer drug. A composition containing aqueous chitosan having a mol. weight 900-25,000 is used as a

safener to an anticancer drug in which 0.02-1 g anticancer drug is applied to 1 g aqueous chitosan. The anticancer drug is at least one selected from actinomycin D, acralvicine, cyclocytidine, busulfan, chromomycin A3, cisplatin, cytosine arabinoside, daunomycin, 5-FU, L-asparaginase, 6-mercaptopurine, riboside, OK-432, PSK, UFT, vincristine, and vindesine.

L31 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:512437 CAPLUS

DOCUMENT NUMBER: 141:55857

TITLE: Manufacture of chitosan-containing

composite emulsions with improved volume

efficiency and storage stability, their compositions,

and articles coated with them

INVENTOR(S): Urakami, Tadashi; Waki, Atsushi; Inui, Kuniaki;

Matoba, Yasuhiro; Taichi, Ikuo; Imashiro, Hideki;

Irie, Yasuhiro

PATENT ASSIGNEE(S): Kowa Chemical Industries Co., Ltd., Japan; Chuo Rika

Kogyo Corporation

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

Patent

CODEN: JKXXAF

DOCUMENT TYPE: LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004175876	A	20040624	JP 2002-342283	20021126
JP 3789887	B2	20060628		

PRIORITY APPLN. INFO.: JP 2002-342283 20021126

The method contains polymerizing radically polymerizable monomers in the presence of chitosan (derivs.) by adding emulsions of them to reaction system successively or intermittently. Thus, dropping a prepolymd. emulsion containing Adeka Reasoap ER 20 (nonionic reactive emulsifier) 77.3, Adeka Reasoap ER 30 (nonionic reactive emulsifier) 5, Me methacrylate 90, cyclohexyl methacrylate 60, 2-ethylhexyl acrylate 92, C 60M (chitosan) 8, adipic acid 6 parts to a reactor at 60° for 2 h, aging it at 70° for 2 h, and applying it to a plaster board gave a coating

showing good dryability, alkali resistance, and deodorant properties.

L31 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:757430 CAPLUS

DOCUMENT NUMBER: 139:256713

TITLE: Chitosan-containing

composition for improving disease resistance

and growth of plants

INVENTOR(S): Sakurai, Haseo; Fukuya, Hiroki; Anzai, Fukumi

PATENT ASSIGNEE(S): Showa Denko K. K., Japan SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE: Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	DATE		
WO 2003077654	A1	20030925	WO 2003-JP3472	20030320	
W: AE, AG,	AL, AM, AT	r, AU, AZ,	BA, BB, BG, BR, BY,	BZ, CA, CH, CN,	
CO, CR,	CU, CZ, DE	E, DK, DM,	DZ, EC, EE, ES, FI,	GB, GD, GE, GH,	
GM, HR,	HU, ID, IL	L, IN, IS,	KE, KG, KR, KZ, LC,	LK, LR, LS, LT,	
LU, LV,	MA, MD, MG	G, MK, MN,	MW, MX, MZ, NI, NO,	NZ, OM, PH, PL,	
PT, RO,	RU, SC, SD	O, SE, SG,	SK, SL, TJ, TM, TN,	TR, TT, TZ, UA,	
UG, US,	UZ, VC, VN	I, YU, ZA,	ZM, ZW		
RW: GH, GM,	KE, LS, MW	, MZ, SD,	SL, SZ, TZ, UG, ZM,	ZW, AM, AZ, BY,	
KG, KZ,	MD, RU, TJ	J, TM, AT,	BE, BG, CH, CY, CZ,	DE, DK, EE, ES,	
FI, FR,	GB, GR, HU	J, IE, IT,	LU, MC, NL, PT, RO,	SE, SI, SK, TR,	
BF, BJ,	CF, CG, CI	[, CM, GA,	GN, GQ, GW, ML, MR,	NE, SN, TD, TG	
AU 2003217484			AU 2003-217484	, 20030320	
JP 2003342105	A	20031203	JP 2003-77850	20030320	
JP 3781733					
EP 1484968	A1	20041215	EP 2003-712813	20030320	
• • •			GB, GR, IT, LI, LU,		
IE, SI,	LT, LV, FI	I, RO, MK,	CY, AL, TR, BG, CZ,	EE, HU, SK	
CN 1642419	==		CN 2003-806395		
US 2005239657	A1	20051027	US 2005-508213	20050609	
PRIORITY APPLN. INFO.	:		JP 2002-77965		
			US 2002-367214P		
			WO 2003-JP3472		

AB A composition for improving disease resistance and growth of plants comprises (A) a chitosan having a mol. weight of 3,000 to 60,000, (B) a chitosan having a mol. weight of 35,000 to 90,000 (provided that the mol. weight of chitosan (A)

and the mol. weight of chitosan (B) are different) and (C) a lactic acid and/or a succinic acid. By using the composition of the present invention wherein two kinds of chitosans having different mol. wts., an effect of enhancing stable and high disease resistance and improving growth can be exerted on plants.

L31 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

5

ACCESSION NUMBER:

REFERENCE COUNT:

1998:764027 CAPLUS

DOCUMENT NUMBER:

130:48702

TITLE:

Chitosan-containing

compositions for improving plant disease

resistance

INVENTOR (S):

Vasiljevich, Novozhilov kapiton; Leonidovich, Tjuterev Stanislav; Aleksandrovich, Tarlakovskij Stanislav; Sergeevich, Jaubchik Mikhail; Filippovich, Kolomiets Aleksej; Fedorovich, Panarin Evgenij; Jakovlevich, Ismailov Eduard; Ismailovich, Gamza-Zade Arif;

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Jakovlevich, Ismailov Vladimir; Ivanovich, Begunov

Ivan

PATENT ASSIGNEE(S):

SOURCE:

Iskra Industry Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

. Oal

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10309129	A	19981124	JP 1997-282316	19971015
JP 3356973	B2	20021216		
RU 2127056	C1	19990310	RU 1997-101133 <sup>°</sup>	19970123
RU 2158510	C2	20001110	RU 1997-107927	19970515
PRIORITY APPLN. INFO.:			RU 1997-101133 A	19970123
			RU 1997-107927 A	19970527

AB Compns. for enhancing resistance to plant diseases comprise chitosan; lactic acid and/or succinic acid, optionally mixed with glutamic acid or its salts; and 1-3 kinds of biol. active materials selected from phytohormones, unsatd. fatty acids or derivs., alkyldimethylbenzylammonium salts of crotonic acid-vinylpyrrolidone copolymer, phenolic acids, and inorg. salts; and water. Thus, seed treatment with an aqueous solution containing

chitosan 0.5 and succinic acid 0.5% by weight was effective for controlling Helminthosporium sativum in wheat.

L31 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1998:576618 CAPLUS

DOCUMENT NUMBER:

129:217686

TITLE:

Biodegradable and transparent chitosan-

containing compositions and their

manufacture

INVENTOR(S):

Sumida, Hiroshi; Yoshimoto, Katsuhiko; Yoshimura,

Osamu; Ueda, Kazumasa

PATENT ASSIGNEE(S):

Negami Kogyo K. K., Japan

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10231382	Α	19980902	JP 1997-36725	19970220
JP 3799117	B2	20060719		
PITTY APPLN THEO .			TD 1997-36725	19970220

AB The compns., useful for foams and films in packaging and agriculture (no data), are manufactured by drying and curing an aqueous mixts. of chitosan, poly(vinyl alc.), and compds. containing ≥2 amino- and/or OH-reactive groups. Thus, a composition containing 20 parts 10% SK 10 AcOH aqueous solution

(chitosan), 80 parts 10% Gohsenol GH 20 aqueous solution (PVA), 0.8 part M 3 (crosslinking agent), and 1 part glycerin was cast on a polyester film and dried at 90-130° for 1 h to give a 30  $\mu$ m-thick transparent film showing tensile strength 6.9 kg/mm2, elongation 69%, good water resistance., biodegradability, and antibacterial properties.

L36 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:77658 CAPLUS

DOCUMENT NUMBER: 141:42688

TITLE: Chitosan salts as nasal sustained delivery systems for

peptidic drugs

AUTHOR(S): Cerchiara, T.; Luppi, B.; Bigucci, F.; Zecchi, V.

CORPORATE SOURCE: Department of Pharmaceutical Sciences, Bologna, 40127,

Italy

Journal of Pharmacy and Pharmacology (2003), 55(12), SOURCE:

1623-1627

CODEN: JPPMAB; ISSN: 0022-3573

PUBLISHER: Pharmaceutical Press

DOCUMENT TYPE: Journal LANGUAGE: English

The aim of this study was to describe a sustained drug release system

based on chitosan salts for vancomycin hydrochloride delivery.

Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying

technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behavior of vancomycin hydrochloride from the phys. mixts. at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by chitosan salts and, in particular, chitosan hydrochloride provided the lowest

release of vancomycin.

REFERENCE COUNT: THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS 21 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:795160 CAPLUS

DOCUMENT NUMBER: 140:43678

TITLE: Alkaline chitosan solutions

AUTHOR (S): Muzzarelli, Corrado; Tosi, Giorgio; Francescangeli,

Oriano; Muzzarelli, Riccardo A. A.

CORPORATE SOURCE: Faculty of Medicine, Institute of Biochemistry,

Polytechnic University of Marche, Ancona, IT-60100,

Italy

SOURCE: Carbohydrate Research (2003), 338(21), 2247-2255

CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

Rigid and transparent hydrogels were obtained upon pouring chitosan salt solns. into saturated ammonium hydrogen carbonate. Incubation at 20 °C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO2-NH4+ a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, mol. sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate, and lactate salts. Their hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solns. at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 °C). Citrate could cross-link chitosan and impart insoly. to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH4HCO3 treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solns. of mixed chitosan carbamate and alginate were spray-dried at 115 °C to manufacture chitosan-alginate microspheres having prevailing diameter approx 2 μ.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS L36 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:335241 CAPLUS

DOCUMENT NUMBER: 138:175642

TITLE: Influence of different chitosan salts on the release

of sodium diclofenac in colon-specific delivery

AUTHOR(S): Orienti, I.; Cerchiara, T.; Luppi, B.; Bigucci, F.;

Zuccari, G.; Zecchi, V.

CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of

Bologna, Bologna, 40127, Italy

SOURCE: International Journal of Pharmaceutics (2002),

238(1-2), 51-59

CODEN: IJPHDE; ISSN: 0378-5173

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Chitosan (CH) was dissolved in aqueous solns. containing aspartic, glutamic,

hydrochloric, lactic and citric acids to obtain different chitosan salts.

Chitosan salts were collected from the solns. by spray-

drying and the powders obtained were mixed with Sodium Diclofenac (SD), taken as a model anti-inflammatory drug. This study evaluated in vitro the influence of acid type on the release behavior of SD from the phys. mixture during gastrointestinal transit. The phys. mixture of the chitosan salts with SD provided slower drug release than the pure drug both in acidic and alkaline pHs. In addition, the interaction with  $\beta\text{-glucosidase}$  at pH 7.0 enhanced the release rate. Among the

chitosan salts used, glutamic and aspartic salts provided the best control

of release.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 4 OF 4 MEDLINE on STN ACCESSION NUMBER: 2004039752 MEDLINE DOCUMENT NUMBER: PubMed ID: 14738587

TITLE: Chitosan salts as nasal sustained delivery systems for

peptidic drugs.

AUTHOR: Cerchiara T; Luppi B; Bigucci F; Zecchi V

CORPORATE SOURCE: Department of Pharmaceutical Sciences, Via S. Donato 19/2,

40127 Bologna, Italy.

SOURCE: The Journal of pharmacy and pharmacology, (2003 Dec) Vol.

55, No. 12, pp. 1623-7.

Journal code: 0376363. ISSN: 0022-3573.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200403

ENTRY DATE: Entered STN: 24 Jan 2004

Last Updated on STN: 31 Mar 2004 Entered Medline: 30 Mar 2004

AB The aim of this study was to describe a sustained drug release system

based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate

and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the physical mixtures at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by chitosan salts and, in particular, chitosan hydrochloride provided the lowest release of vancomycin.

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L39 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:847502 CAPLUS

DOCUMENT NUMBER: 142:112921

TITLE: Extension of shelf life of white rice cake and

uncooked noodle using chitosan Im, Jong Hwan; Lee, Jang Wook

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2000030496	Α	20000605	KR 2000-10804	20000225
PRIORITY APPLN. INFO.:			KR 2000-10804	20000225

AB Extension of shelf life and prevention of deterioration due to microorganisms in white rice cake and uncooked noodle are provided by using chitosan and lactic acid and which is substitute for alc. White rice cake is soaked or sprayed with the solution of chitosan with lactic acid before packaging. For uncooked noodles, solution of chitosan and lactic acid is added to water for kneading dough or finished noodle is soaked or sprayed with the chitosan solution. Thus, the method does not raise the production cost and can increase the effect 2 times compared to the method using alc.

L39 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:172909 CAPLUS

DOCUMENT NUMBER: 138:210388

TITLE

TITLE: Chitosan-coated web and process for making the same

INVENTOR(S): Tamburro, Maurizio; D'Alesio, Nicola; Pesce,

Antonella; Di Cintio, Achille; Carlucci, Giovanni;

Tordone, Adelia

PATENT ASSIGNEE(S): The Procter & Gamble Company, USA

SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	TENT																
	1287															0010	
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	к:		-	•			ES,				•	пт,	ъо,	ИL,	SE,	MC,	PT,
							RO,										
EΡ	1287	836			A2		2003	0305		EP 2	002-	1801	2		2	0020	812
ΕP	1287	836			A3		2003	0716									
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
							RO,										
ΕP	1287															0020	812
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WO	2003	0180	73		A2		2003	0306	1	WO 2	002-1	US26:	998		2	0020	823
WO	2003	0180	73		A3		2003	1113									
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG.	BR,	BY.	BZ.	CA,	CH,	CN.
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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                 20030306
     WO 2003018074
                          A2
                                            WO 2002-US26999
                                                                    20020823
     WO 2003018074
                          A3
                                 20031113
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2002327522
                          A1
                                 20030310
                                          AU 2002-327522
                                                                    20020823
     EP 1418953
                          A2
                                 20040519
                                           EP 2002-763516
                                                                    20020823
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
         R:
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
     EP 1425049
                                 20040609
                                            EP 2002-766091
                                                                    20020823
                          A2
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
     BR 2002012094
                                            BR 2002-12094
                                 20040803
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     BR 2002012095
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                                 20040803
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     JP 2005519653
                          Т
                                20050707
                                             JP 2003-522589
                                                                    20020823
     JP 2005524416
                          Т
                                             JP 2003-522588
                                 20050818
                                                                    20020823
     US 2004166307
                                             US 2004-785277
                          A1
                                 20040826
                                                                    20040224
     US 2004167487
                          A1
                                 20040826
                                             US 2004-785464
                                                                    20040224
PRIORITY APPLN. INFO.:
                                             EP 2001-120342
                                                                 A 20010824
A 20020812
                                             EP 2002-18012
                                             EP 2002-18013
                                                                 A 20020812
                                             WO 2002-US26998
                                                                    20020823
                                                                 W
                                             WO 2002-US26999
                                                                 W 20020823
AΒ
     The present invention relates to a particulate chitosan coated web for use
     in disposable absorbent articles and a process for making the same.
     chitosan particles have a mean diameter of not more than 300 \mu. The
     process involves the step applying onto the surface of a precursor web a
     solution or a dispersion comprising chitosan material in the form of a
     spray of droplets having a mean diameter of less than 1500 \mu.
REFERENCE COUNT:
                               THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L39 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:
                         2001:7489
                                    CAPLUS
DOCUMENT NUMBER:
                         134:71036
TITLE:
                         Method for treating cotyledonous plants with chitosan
                         salts for improving growth
                         Heinsohn, Géorge E.; Bjornson, August S.
PATENT ASSIGNEE(S):
                         DCV, Inc., USA
```

INVENTOR(S):

U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 13,945, SOURCE:

> abandoned. CODEN: USXXAM

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

DOCUMENT TYPE:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6167652	B1	20010102	US 1999-237065	19990126

US 1997-787870 PRIORITY APPLN. INFO.: B2 19970123 US 1998-13945 B2 19980127

Application of a water-soluble salt of chitosan to the foliage of growing plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties enjoy an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5% weight chitosan salt using

conventional agricultural equipment and techniques.

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:314503 CAPLUS

DOCUMENT NUMBER: 132:325816

Ethanolic cosmetic preparations containing chitosan TITLE:

Panzer, Claudia; Tesmann, Holger; Wachter, Rolf INVENTOR(S):

PATENT ASSIGNEE(S): Cognis Deutschland G.m.b.H., Germany

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION: DATENT NO

PATEN'	PATENT NO.					ND DATE			APPLICATION NO.					DATE		
	WO 2000025734			A1	A1 20000511			WO 1999-EP8105					19991027			
	JP,		CII	OV	שת	שת	DC.	ומ דקו	. CD	CD.	TE	TM	T 77	ма	NTT	
K	I: AT, PT,	•	CH,	CI,	DE,	DK,	ES,	FI, F	к, сь,	GR,	ie,	11,	шо,	MC,	ип,	
DE 198	350734			A1		2000	0511	DE	1998-	1985	0734		19	9981:	104	
EP 113	1040			<b>A1</b>		2001	0912	EP	1999-	9713	03		19	9991	27	
EP 113	1040			B1		2004	1215									
R	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB, GI	R, IT,	LI,	LU,	NL,	SE,	MC,	PT,	
	ΙE,	SI,	LT,	LV,	FI,	RO										
ES 223	5551			Т3		2005	0701	ES	1999-	9713	03		19	9991	27	
PRIORITY A	PLN. I	INFO	.:					DE	1998-	1985	0734	Α	. 19	981:	L04	
								WO	1999-	EP81	05	W	19	9991	27	

AΒ Cosmetic prepns. containing chitosan are rendered compatible with EtOH, e.g. for use in hair sprays or deodorants, by neutralizing with lactic acid, pyrrolidonecarboxylic acid, nicotinic acid, hydroxyisobutyric acid, hydroxyisovaleric acid, and their mixts. Suitable compns. contained EtOH 70-90, chitosan neutralization products 0.01-5, other auxiliaries and additives, and H2O to 100 weight%.

REFERENCE COUNT: THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS 9 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:15226 CAPLUS

DOCUMENT NUMBER: 130:43108

TITLE: Cosmetic compositions containing a cationic polymer

and an active molecule contained in at least a micro or nanoparticulate vector for treating living or inert

surfaces

Derrieu, Guy; Pougnas, Jean Luc; Piat, Jean Philippe INVENTOR(S):

Robert Charles; Monginoux, Patricia Anne Laure; Karst,

Christian

Virbac S. A., Fr. PATENT ASSIGNEE(S):

Fr. Demande, 18 pp. SOURCE:

CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT:

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
FR 2761886	A1	19981016	FR 1997-4549		19970414
FR 2761886	B1	20000505			
. US 6500446	B1	20021231	US 1998-59200		19980414
PRIORITY APPLN. INFO.:			FR 1997-4549	Α	19970414
3 5 ml			Annal Strategies and Annal Anna Anna		<b>7</b>

AB The title compns. are disclosed. A hair lotion contained octyl stearate 8.00, Emulgade SE 6.00, Novasomes 10.00, glycerin 5.00, decyl oleate 4.00, cetearyl alc. 1.50, chitosan glycolate 0.15, phenylethyl alc. 0.20, and water q.s. 69.15%.

L39 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1998:771319 CAPLUS

DOCUMENT NUMBER:

130:29226

TITLE:

Use of sugar derivatives against adhesion of protozoa

and parasites

INVENTOR(S):

Wolf, Florian; Schreiber, Joerg; Maurer, Peter;

Buenger, Joachim

PATENT ASSIGNEE(S):

Beiersdorf A.-G., Germany

SOURCE:

Ger. Offen., 20 pp.

CODEN: GWXXBX

DOCUMENT TYPE: LANGUAGE: Patent German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19721411	A1	19981126	DE 1997-19721411	19970522
PRIORITY APPLN. INFO.:			DE 1997-19721411	19970522

AB Adhesion of pathogenic protozoa and parasites to the skin or organ surfaces is inhibited by topical, oral, or parenteral administration of compns. containing antiadhesive carbohydrates or carbohydrate derivs. such as esters with fatty acids. Thus, a water-in-oil lotion contained paraffin oil 25.00, silicone oil 2.00, ceresin 1.50, lanolin alc. 0.50, glucose sesquiisostearate 2.50, cetearyl glucoside 1.00, perfume, preservative, and H2O to 100.00 weight%.

L39 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1995:621724 CAPLUS

DOCUMENT NUMBER:

123:17449

TITLE:

Hair preparations containing linear

polysiloxane-polyoxyalkylene block copolymers and

cationic polymers

INVENTOR(S): PATENT ASSIGNEE(S): Dupuis, Christine Oreal S. A., Fr. Fr. Demande, 19 pp.

SOURCE:

CODEN: FRXXBL

DOCUMENT TYPE:

Patent French

LANGUAGE:

1 1 0 11

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2709954	A1	19950324	FR 1993-10967	19930915
FR 2709954	B1	19951020		

PRIORITY APPLN. INFO.:

FR 1993-10967

19930915

AB The title hair prepns. which have good fixating ability are disclosed. A hair lotion contained Jaguar C 13S 1, a linear polysiloxane-polyoxyalkylene block copolymer 1, EtOH 8.6, perfumes and preservatives q.s., and water q.s. 100g.

L39 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:212475 CAPLUS

DOCUMENT NUMBER: 112:212475

TITLE: Chitosan salts as plant growth regulators

INVENTOR(S): Lewis, Robert E.

PATENT ASSIGNEE(S): Bentech Laboratories, Inc., USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 8907395	A1 19890824	WO 1989-US429	19890207
W: AU, BR, DK,	FI, JP, NO, SU		
RW: AT, BE, CH,	DE, FR, GB, IT, 1	LU, NL, SE	
AU 8931926	A 19890906	AU 1989-31926	19890207
ZA 8901214	A 19891129	ZA 1989-1214	19890216
PRIORITY APPLN. INFO.:		US 1988-158227 A	19880219
		US 1988-251693 A	19880927
		WO 1989-US429 A	19890207

AB Solns. of chitosan salts are applied to crops, in order to enhance protein content of the fruits as well as improve resistance to fungal pathogens and increase the yield. Application may be made by seed treatment, irrigation, root dip or foliar spray. A fixing agent or supplemental treatment is used for seed treatments of all but short-lived plants. Chitosan salt solns. may also be applied to crops for improving freeze protection or for seed priming. Most applications require very low mol.-weight chitosan, obtained by partial oxidative depolymn. of com. chitosan. Foliar spray with 50 ppm chitosan lactate increased the yield and protein content of rice.

L41 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1015840 CAPLUS

DOCUMENT NUMBER: 141:428027

TITLE: Method for producing a chitosan-bound salt with

antihypertensive activity

INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park,

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S): S. Korea

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                               DATE
                       KIND
                                         APPLICATION NO.
                                                                DATE
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                               20041125 WO 2004-KR410
    WO 2004100681
                        A1
                                                                20040227
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK,
            LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,
            NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
            TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
            ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
            TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                              20041202 KR 2003-31616
20060308 EP 2004-715573
    KR 2004099587
                        Α
                                                              20030519
    EP 1631155
                                                                 20040227
                        A1
        R: DE, ES, FR, GB, IT
    JP 2006518190
                                          JP 2005-518455
                        т
                               20060810
                                                                 20040227
    US 2005232999
                                          US 2004-518419
                        A1
                               20051020
                                                                 20041217
PRIORITY APPLN. INFO.:
                                                             A 20030519
                                          KR 2003-31616
                                          WO 2004-KR410
                                                             W 20040227
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AB The present invention relates to a method for producing a chitosan-bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

L41 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:185865 CAPLUS

DOCUMENT NUMBER: 112:185865

TITLE: Polyurethane sheet containing chitosan

salts for treatment of decubitus ulcer

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

INVENTOR(S): Morita, Isamu; Sugimoto, Tadayuki

PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

JP 01207238 A 19890821 JP 1988-33552 19880215 PRIORITY APPLN. INFO.: JP 1988-33552 19880215

AB A sheet for treatment of decubitus ulcer consists of a polyurethane foam sheet containing chitosan salt particles. Thus, a cream was prepared using polyurethane 390 and chitosan lactate 4.5 parts by weight with foam-producing agents and a thickener, and spread over a

nonwoven sheet of polyester.

L42 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:716545 CAPLUS

DOCUMENT NUMBER: 135:222846

TITLE: Salt- and drought-resistant agent for plant and its

application

INVENTOR(S): Zhao, Kefu; Cao, Ziyi; Song, Jie; Zhang, Hui; Zhao,

Yanxiu

PATENT ASSIGNEE(S): Shandong Normal University, Peop. Rep. China

SOURCE: Faming Zhuanli Shenging Gongkai Shuomingshu, 9 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	CN 1290483	Α	20010411	CN 1999-112463	19990930
PRIO	RITY APPLN. INFO.:			CN 1999-112463	19990930
AB	The title agent con	tains	gibberellin	compds. from one or more	of GA3, G

AB The title agent contains gibberellin compds. from one or more of GA3, GA7, GA4 and their K or Na salts, salicylic acid derivs. from one or more of Na salicylate, K salicylate, Ca salicylate, Me salicylate, Et salicylate and Pr salicylate, amino oligosaccharide (O-carboxymethyl chitosan), and calcium salt from one or more of CaCl2, Ca(NO3)2, Ca(Ac)2, Ca propionate, Ca butyrate, Ca valerate, Ca citrate, etc. Vitamins, amino acids, plant growth regulators, organic acid, mineral substance, surfactant, polysaccharides can be added to the agent. The agent is suitable for the crops growing in salty soil, and used to immerse seeds, spray seedlings or mix with seeds. The agent is drought-resistant and salt-resistant.

L42 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:545443 CAPLUS

DOCUMENT NUMBER: 135:126914

TITLE: Hair aerosol foams containing thickeners and

propellants

INVENTOR(S): Schmenger, Juergen; Abels, Wilhelm; Jahedshoar,

Mehrdad

PATENT ASSIGNEE(S): Wella A.-G., Germany

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT :	NO.			KIN	D	DATE		1	APPLICATION NO.				DATE			
WO	2001	0528	00		A1	.1 20010726		1	WO 2001-EP32					20010104			
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	.GB,	GD,	GE,	GH,	GM,	HR,
		HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
	•	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,
							BY,										
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,
							GB,								-		
							GA,								-		·
DE	1000	2513			A1		2001	0816	I	DE 2	000-	10002	2513	•	2	0000	121
ΑU	2001	0251	31		A5		2001	0731	7	AU 2	001-	2513	1		20	0010	104
EΡ	1162	938			A1		2001	1219	I	EP 20	001-	90038	36		20	0010	104
ΕP	1162	938			В1		2003	1105									
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,

IE, SI, LT, LV, FI, RO BR 2001004147 Α 20020115 BR 2001-4147 20010104 JP 2003520219 JP 2001-552848 Т 20030702 20010104 AT 253350 Т 20031115 AT 2001-900386 20010104 US 2002197213 A1 20021226 US 2002-937228 20020128 US 6737046 B2 20040518 PRIORITY APPLN. INFO.: DE 2000-10002513 A 20000121 WO 2001-EP32 W 20010104

OTHER SOURCE(S): MARPAT 135:126914

AB A composition for a hair preparation is disclosed, preferably in the form of an optically clear, transparent or translucent product which can be used as an aerosol foam. The composition contains (A) at least one nonionic, amphiphilic associative thickener in a suitable cosmetic base and (B) at least one propellant. The agent can be used as a leave-in hair cure or as a hair rinse for conditioning hair and providing it with shine and volume Thus, a mild hair formulation contained Arquad-1225 0.8, Dow Corning-193 1.0, Pure Thix M 1.0, Rewoteric AMCAS 0.5, and water to 100 g. The composition also contained di-Me ether and F152a.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:7489 CAPLUS

DOCUMENT NUMBER: 134:71036

TITLE: Method for treating cotyledonous plants with

chitosan salts for improving growth

INVENTOR(S): Heinsohn, George E.; Bjornson, August S.

PATENT ASSIGNEE(S): DCV, Inc., USA

SOURCE: U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 13,945,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6167652	B1	20010102	US 1999-237065	19990126
PRIORITY APPLN. INFO.:			US 1997-787870	B2 19970123
			US 1998-13945	B2 19980127

AB Application of a water-soluble salt of chitosan to the foliage of growing plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties enjoy an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5% weight chitosan salt using conventional agricultural equipment and techniques.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:314503 CAPLUS

DOCUMENT NUMBER: 132:325816

TITLE: Ethanolic cosmetic preparations containing chitosan

INVENTOR(S): Panzer, Claudia; Tesmann, Holger; Wachter, Rolf

PATENT ASSIGNEE(S): Cognis Deutschland G.m.b.H., Germany

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.
                     KIND DATE
                                       APPLICATION NO.
                                                              DATE
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                                                              _____
    WO 2000025734
                       A1 20000511 WO 1999-EP8105
                                                            19991027
        W: JP, US
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
                             20000511 DE 1998-19850734
    DE 19850734
                             20010912 EP 1999-971303
                                                             19991027
    EP 1131040
                       A1
    EP 1131040
                       B1
                             20041215
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
                      T3 20050701
                                      ES 1999-971303
    ES 2235551
                                                              19991027
                                       DE 1998-19850734 A 19981104
WO 1999-EP8105 W 19991027
PRIORITY APPLN. INFO.:
AB
    Cosmetic prepns. containing chitosan are rendered compatible with EtOH, e.g.
    for use in hair sprays or deodorants, by neutralizing with
    lactic acid, pyrrolidonecarboxylic acid, nicotinic acid, hydroxyisobutyric
    acid, hydroxyisovaleric acid, and their mixts. Suitable compns. contained
    EtOH 70-90, chitosan neutralization products 0.01-5, other auxiliaries and
    additives, and H2O to 100 weight%.
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THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 9 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:375432 CAPLUS

DOCUMENT NUMBER:

131:23503

TITLE:

Vaccine compositions for mucosal administration

comprising chitosan

INVENTOR(S):

Makin, Jill Catherine; Bacon, Andrew David

PATENT ASSIGNEE(S):

Medeva Europe Limited, UK

SOURCE:

PCT Int. Appl., 32 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

									APPLICATION NO.									
	9927															9981	 127	
												, CA,						
	•••											, ID,						
		-		•	•				•		•	, MD,						
		•		•	•		•		•		•	, SK,		•				
		•	•	•	•	•	•	•	•		•	, KG,	•	•		•	•	
	DM.	•	•	•	•	•	•				•	, RG,		•				
	KW.	-	-	-	-		-	-	-			, SE,	-	-				
			•	•							•		Dr,	ы,	CF,	, cg,	CI,	
<b>C</b> 7	2210						MR,						710				107	
CA	2310	/18			AI		1999	0610		CA	1998	-2310	1/18			19981	12/	
	9915									AU	1999	-1569	1			19981	127	
	7459																	
	1051						2000	1115	]	EP	1998	-9599	98		-	L9981	127	
EP	1051	190			B1		2003	1001										
	R:	ΑT,	ΒE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT	, LI,	LU,	NL,	SE	MC,	PT,	
		ΙE,																
JP	2001	5245	32		T		2001	1204		JP .	2000	-5229	45		:	L9981	127	
NZ	5045	04			Α		2002	0531	1	NZ	1998	-5045	04		-	19981	127	
AT	2509	37			T		2003	1015	1	TΑ	1998	-9599	98		-	19981	127	
NO	2000	00274	41		Α		2000	0526				-2741				20000	526	
	6534											-5831				20000		
PRIORIT												-2508						
												-GB35				9981		
3.75 ml-					-													

AB The invention provides a vaccine composition adapted for mucosal administration; the composition comprising one or more influenza vaccine antigens and an effective adjuvant amount of an acid addition salt of a chitosan wherein the chitosan is a deacetylated chitin which is at least 80 % deacetylated and has a weight average mol. weight of between 10,000 and 100,000.

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1999:172578 CAPLUS

DOCUMENT NUMBER:

130:227723

TITLE:

In situ formation of bioadhesive polymeric material

APPLICATION NO.

DATE

INVENTOR(S):

Dettmar, Peter William; Jolliffe, Ian Gordon;

Skaugrud, Oyvind

PATENT ASSIGNEE(S):

Reckitt & Colman Products Limited, UK

SOURCE:

PCT Int. Appl., 55 pp.

DATE

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

KIND

PATENT INFORMATION:

PATENT NO.

							_										_		-
	WO	9909						 1999	0304	1	wo	199	98-0	B24	10		1	 9980.	810
		W:	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR	ε, Ι	BY,	CA,	CH,	CN,	CU,	CZ,	DE,
			DK,	EE,	ES,	FI,	GB,	GE,	GH,	GM,	HR	۲, I	HU,	ID,	IL,	IS,	JP,	KE,	KG,
			KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU	J, ]	LV,	MD,	MG,	MK,	MN,	MW,	MX,
			NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG	3, 5	SI,	SK,	SL,	TJ,	TM,	TR,	TT,
			UA,	UG,	US,	UΖ,	VN,	ΥU,	ZW										
		RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SZ,	UG,	ZW	1, 2	AT,	BE,	CH,	CY,	DE,	DK,	ES,
			FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL	1 , د	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,
								MR,											
	GB	2328	443			Α		1999	0224	(	GB	199	98-1	.709	3		1	9980	807
	GB	2328	443			В		2001	0905										
	CA	2301	165			A1		1999	0304	(	CA	199	98-2	301	165		1	9980	810
	ΑU	9887	389					1999			ΑU	199	98-8	3738	9.		1	9980	810
		7377						2001											
	EΡ	1007	015			A1		2000	0614 <sup>.</sup>	]	EΡ	199	98-9	387	35		1	9980	810
	EP	1007	015			B1		2003	0709										
								GB,				•							
	BR	9811 2000	245			Α		2000	0718	]	BR	199	98-1	.124	õ		1	9980	810
	HU	2000	0360	2		A2												9980	
	JP	2001 2445	51354	49		T		2001	0904		JP	200	00-5	073	53		1	9980	810
	ΑT	2445	62			${f T}$												9980	810
	ES	2198	062			Т3		2004	0116	]	ES	199	98-9	3878	35		1	9980	810
		9807	516			Α		1999	0222	2	ZA	199	98-7	516			_ 1	9980	820
	MX	2000	01818	В		Α		1999 2000	1026	1	MX	200	00-1	818			2	0000	221
	US	6391	294			B1		2002	0521	ı	US	200	00-4	857	71		2	0000	
PRIC	RIT	APP:	LN.	INFO	. :					(	GB	199	97-1	.7626	5	i	A 1	9970	821
																		9970	
										I	WO	199	98-0	B24	LO	1	W 1	9980	810
AB	The	e inv	entid	on o	rovi	des a	a ph	arma	ceuti	ical:	lv	acc	cept	able	og s	Lvme:	ric	mate	rial

The invention provides a pharmaceutically acceptable polymeric material formed in situ at a body surface and a process for the preparation of material. The polymeric material is formed by applying an anionic polymer and a cationic polymer to the surface in the presence of water. Thus, an anionic solution contained sodium alginate 2, and methylparaben (preservative) 0.1 g, flavors, sweeteners, and colors q.s. and water to 100 mL. A cationic solution contained chitosan chloride (Seacure CL 211) 0.4 and methylparaben (preservative) 0.1 g, flavors, sweeteners, colors q.s. and water to 100 mL. Dissolve the Me paraben, flavors, sweeteners and colors in the water. Between 0.2 and 1 mL of each solution may be sprayed simultaneously onto the back of the throat to form a soothing protective film. This film is of particular benefit to those suffering from a sore throat.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:519876 CAPLUS

DOCUMENT NUMBER: 129:132548

TITLE: Chitosan salts as crop yield

enhancers.

INVENTOR(S): Heinsohn, George E.; Bjornson, August S.

PATENT ASSIGNEE(S): DCV, Inc., USA

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATE	KIND DATE			APPLICATION NO.						DATE						
WO 9	832335			A1	_	1998	0730		WO	1998-	US13:	31		1:	9980:	122
1	W: AL,	AM,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY	, CA,	CN,	CU,	CZ,	EE,	GΕ,	GW,
	HU,	IL,	IS,	JP,	KG,	KP,	KR,	KZ,	LC	, LK,	LR,	LT,	LV,	MD,	MG,	MK,
	MN,	MX,	NO,	NZ,	PL,	RO,	RU,	SG,	SI	, SK,	SL,	TJ,	TM,	TR,	TT,	UA,
	UZ,	VN,	YU,	AM,	AZ,	BY,	KG,	KZ,	MD	, RU,	ТJ,	TM				
]	RW: GH,	GM,	KE,	LS,	MW,	SD,	SZ,	UG,	ZW	, AT,	BE,	CH,	DE,	DK,	ES,	FI,
	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT	, SE,	BF,	ВJ,	CF,	CG,	CI,	CM,
	GA,	GN,	ML,	MR,	NE,	SN,	TD,	TG		,		·	·	•	·	-
CA 22	278301			A1		1998	0730		CA	1998-	2278	301		19	9980	122
AU 98	862484			Α		1998	0818		AU	1998-	6248	4		19	9980	122
EP 9	64616			A1		1999	1222		EΡ	1998-	9046	65		19	9980	122
EP 90	64616			В1		2003	0102									
]	R: DE,	ES,	FR,	GB,	IT,	NL,	PT,	ΙE								
BR 98	806926	-	·	A	·	2000	0502		BR	1998-	6926			19	980:	122
JP 20	0015073	61		Т		2001	0605			1998-					980	L22
ES 2:	189133			Т3		2003	0701		ES	1998-	9046	65		19	980	122
MX 99	906833			Α		2000	0531		MX	1999-	6833			19	990	722
PRIORITY A	APPLN.	INFO.	. :					1	US	1997-	7878	70	7	A 19	970:	L23
								1	WO	1998-1	US13:	31	V	V 19	980:	L22

AB Application of a water-soluble salt of chitosan to the foliage of growing plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties have an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5 weight% chitosan salt using conventional agricultural equipment and techniques.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:212475 CAPLUS

DOCUMENT NUMBER: 112:212475

TITLE: Chitosan salts as plant growth

regulators

INVENTOR(S): Lewis, Robert E.

PATENT ASSIGNEE(S): Bentech Laboratories, Inc., USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 8907395 19890824 WO 1989-US429 19890207 A1 W: AU, BR, DK, FI, JP, NO, SU RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE AU 8931926 Α 19890906 AU 1989-31926 19890207 ZA 8901214 19891129 ZA 1989-1214 19890216 Α PRIORITY APPLN. INFO.: US 1988-158227 A 19880219 US 1988-251693 A 19880927 WO 1989-US429 A 19890207

Solns. of chitosan salts are applied to crops, in AB order to enhance protein content of the fruits as well as improve resistance to fungal pathogens and increase the yield. Application may be made by seed treatment, irrigation, root dip or foliar spray. A fixing agent or supplemental treatment is used for seed treatments of all but short-lived plants. Chitosan salt solns. may also be applied to crops for improving freeze protection or for seed priming. Most applications require very low mol.-weight chitosan, obtained by partial oxidative depolymn. of com. chitosan. Foliar spray with 50 ppm chitosan lactate increased the yield and protein content of rice.

L42 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1989:75976 CAPLUS

DOCUMENT NUMBER:

110:75976

TITLE:

Water-soluble chitosan

INVENTOR(S): PATENT ASSIGNEE(S):

Kushino, Shigetaka; Asano, Hiroshi Nitta Gelatine Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63225602	Α	19880920	JP 1987-59229	19870313
PRIORITY APPLN. INFO.:			JP 1987-59229	19870313

Water-soluble chitosan (I), useful as protein coagulant for medicines and AB foods, and hair prepns. (no data), was prepared by dehydrating aqueous solns. of

salts of I (obtained by reaction of I and acids), then pulverized. 20 g powdered I was dispersed in 940 mL water, treated with 40 mL 50% aqueous lactic acid to give 2% aqueous solution of I salt, which was evaporated under reduced

pressure to 10% concentration, then spray-dried with air at 175° to give water-soluble powdered I. When the powder 15.0 g was added to 100 mL water, it dissolved immediately to give a solution with high concentration

L42 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1977:572265 CAPLUS

DOCUMENT NUMBER:

87:172265

TITLE:

SOURCE:

Studies on the utilization of crab shell waste -

chitosan as a coagulating agent

AUTHOR(S):

Fujita, Takao; Yamauchi, Takafumi; Yanagisawa, Ikuko;

Hiroi, Osamu

CORPORATE SOURCE:

Cent. Res. Lab., Nippon Suisan Co., Ltd., Tokyo, Japan Nippon Suisan Kabushiki Kaisha Chuo Kenkyusho Hokoku

(1976), 11, 49-55

CODEN: NSKHA2; ISSN: 0369-5735

DOCUMENT TYPE:

Journal

LANGUAGE:

Japanese

HCHO was sprayed on powdered chitin prepared from king crab shell to obtain chitosan salt containing H2O 10 and HCHO 18%, which was used for coagulation of clay suspension, wastewater from processing of ground fish meat, and activated sludge. In the coaqulation test of clay

suspension with 0.1-20 ppm chitosan, the coagulation and settling of clay particles were accelerated with increasing chitosan salt. The chitosan salt also had good coagulation effect for wastewater from ground fish meat processing and activated sludge.

L42 ANSWER 23 OF 26 MEDLINE ON STN ACCESSION NUMBER: 2004039752 MEDLINE DOCUMENT NUMBER: PubMed ID: 14738587

TITLE: Chitosan salts as nasal sustained delivery systems for peptidic drugs.

AUTHOR: Cerchiara T; Luppi B; Bigucci F; Zecchi V

CORPORATE SOURCE: Department of Pharmaceutical Sciences, Via S. Donato 19/2,

40127 Bologna, Italy.

SOURCE: The Journal of pharmacy and pharmacology, (2003 Dec) Vol.

55, No. 12, pp. 1623-7.

Journal code: 0376363. ISSN: 0022-3573.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200403

ENTRY DATE: Entered STN: 24 Jan 2004

Last Updated on STN: 31 Mar 2004 Entered Medline: 30 Mar 2004

AB The aim of this study was to describe a sustained drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the physical mixtures at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by chitosan salts and, in particular, chitosan hydrochloride provided the lowest release of vancomycin.

L42 ANSWER 24 OF 26 MEDLINE ON STN ACCESSION NUMBER: 2003477091 MEDLINE DOCUMENT NUMBER: PubMed ID: 14553988

TITLE: Alkaline chitosan solutions.

AUTHOR: Muzzarelli Corrado; Tosi Giorgio; Francescangeli Oriano;

Muzzarelli Riccardo A A

CORPORATE SOURCE: Institute of Biochemistry, Faculty of Medicine, Polytechnic

University of Marche, Via Ranieri 67, IT-60100 Ancona,

Italy.

SOURCE: Carbohydrate research, (2003 Oct 10) Vol. 338, No. 21, pp.

2247-55.

Journal code: 0043535. ISSN: 0008-6215.

PUB. COUNTRY:

DOCUMENT TYPE:

Netherlands
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200407

ENTRY DATE: Entered STN: 15 Oct 2003

Last Updated on STN: 29 Jul 2004 Entered Medline: 28 Jul 2004

AB Rigid and transparent hydrogels were obtained upon pouring chitosan salt solutions into saturated ammonium hydrogen carbonate. Incubation at 20 degrees C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO(2)(-)NH(4)(+) a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, molecular sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate and lactate salts. Their

hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solutions at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 degrees C). Citrate could cross-link chitosan and impart insolubility to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH(4)HCO(3) treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solutions of mixed chitosan carbamate and alginate were spray-dried at 115 degrees C to manufacture chitosan-alginate microspheres having prevailing diameter approx 2 micron.

L42 ANSWER 25 OF 26 MEDLINE on STN ACCESSION NUMBER: 2003320948 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12851047

TITLE: Controlled release of vancomycin from freeze-dried

chitosan salts coated with different

fatty acids by spray-drying.

Cerchiara T; Luppi B; Bigucci F; Petrachi M; Orienti I; **AUTHOR:** 

Zecchi V

University of Bologna, Department of Pharmaceutical CORPORATE SOURCE:

Sciences, Via S. Donato 19/2, 40127 Bologna, Italy.

SOURCE: Journal of microencapsulation, (2003 Jul-Aug) Vol. 20, No.

4, pp. 473-8.

Journal code: 8500513. ISSN: 0265-2048.

PUB. COUNTRY: England: United Kingdom

Journal; Article; (JOURNAL ARTICLE) DOCUMENT TYPE:

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200311

Entered STN: 10 Jul 2003 ENTRY DATE:

> Last Updated on STN: 18 Dec 2003 Entered Medline: 26 Nov 2003

AB The aim of this study was to describe a controlled drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan aspartate (CH-Asp), chitosan glutamate (CH-Glu) and chitosan hydrochloride (CH-HCl) were prepared by freeze-drying and coated with stearic, palmitic, myristic and lauric acids by spray -drying technique. Vancomycin hydrochloride was used as a peptidic model drug whose sustained release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the freeze-dried and spray -dried systems at pH 2.0 and 7.4.

MEDLINE on STN L42 ANSWER 26 OF 26 2002257824 ACCESSION NUMBER: MEDLINE DOCUMENT NUMBER: PubMed ID: 11996810

TITLE: Influence of different chitosan salts

on the release of sodium diclofenac in colon-specific

delivery.

Orienti I; Cerchiara T; Luppi B; Bigucci F; Zuccari G; AUTHOR:

Zecchi V

CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of

Bologna, Via S. Donato 19/2, 40127, Bologna, Italy...

orienti@biocfarm.unibo.it

International journal of pharmaceutics, (2002 May 15) Vol. SOURCE:

238, No. 1-2, pp. 51-9.

Journal code: 7804127. ISSN: 0378-5173.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200206

ENTRY DATE:

Entered STN: 9 May 2002

Last Updated on STN: 28 Jun 2002 Entered Medline: 27 Jun 2002

AB Chitosan (CH) was dissolved in aqueous solutions containing aspartic, glutamic, hydrochloric, lactic and citric acids to obtain different

chitosan salts. Chitosan salts were collected from the solutions by spray-drying and the powders obtained were mixed with Sodium Diclofenac (SD), taken as a model anti-inflammatory drug. This study evaluated in vitro the influence of acid type on the release behaviour of SD from the physical mixture during gastrointestinal transit. The physical mixture of the chitosan salts with SD provided slower drug release than the pure drug both in acidic and alkaline pHs. In addition, the interaction with beta-glucosidase at pH 7.0 enhanced the release rate. Among the CH salts used, glutamic and aspartic salts provided the best control of release.

L42 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:829916 CAPLUS

DOCUMENT NUMBER: 142:448486

TITLE: Structural characteristics and sorption ability of

chitosan microgranules

AUTHOR(S): Adamiec, Janusz; Modrzejewska, Zofia

CORPORATE SOURCE: Wydz. Inz. Procesowej i Ochrony Srodowiska, Politech.

Lodzka, Lodz, 90-924, Pol.

SOURCE: Inzynieria Chemiczna i Procesowa (2004), 25(3/1),

543-548

CODEN: ICPRDT; ISSN: 0208-6425

PUBLISHER: Oficyna Wydawnicza Politechniki Wroclawskiej

DOCUMENT TYPE: Journal LANGUAGE: Polish

AB Microgranules were formed by means of spray drying of two chitosan salts: acetate and ascorbate. To reduce solubility, glutaraldehyde and sodium triphosphate were added to the solution Dry microgranules as a product of different chemical composition had different structural characteristics: shape, size, d., and volume, and area of pores. Sorption ability of these microgranules was investigated by measuring the sorption of benzene and carbon dioxide (in a highly-vacuum sorptive instrument).

L42 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1058021 CAPLUS

DOCUMENT NUMBER: 142:43406

TITLE: Hair preparations containing fluorescent nanoparticle

compositions

PATENT ASSIGNEE(S): Wella AG, Germany

SOURCE: Ger. Gebrauchsmusterschrift, 34 pp.

CODEN: GGXXFR

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
22.20		U1	20041209		
PRIO.	RITY APPLN. INFO.:	_		DE 2004-202004012607	
AB	The invention conce	rns hai	r prepns. 1	that contain composite na	noparticles
	that are prepared f	rom a m	etal or no	n-metal core and an organ	ic polymer shell;
	the nanoparticles a	re fluo	rescent. (	Cores are formed preferab	ly from an
	oxide ceramics; the	polyme	r coating :	itself can be fluorescent	. There can
	be a layer between	the cor	e and the	shell that is composed of	polyarom.
	fluorescence substa	nces.	The nanocor	mposites can be prepared	by plasma
	technol. The nanop	article	s are inclu	uded in the hair prepns.	along with
	hair care substance	s, poly	siloxanes,	thickening agents, sunsc	reens,
	preservatives, non-	fluores	cent hair o	dyes, surfactants, oxidan	ts, and
	reducing substances	. Thus	a hair sty	yling cream contained (we	ight/weight%):
	PMMA-Fe2O3 0.50; hd	yroxyet	hylcellulos	se 0.10; carbomer 0.50;	
	propyleneglycol 1.5	0; meth	ylparaben (	0.20; aminomethylpropanol	0.39;
	polyvinylpyrrolidon	e 1.50;	glycerin 3	1.00; water to 100.	

L42 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1015840 CAPLUS

DOCUMENT NUMBER: 141:428027

TITLE: Method for producing a chitosan-bound salt with

antihypertensive activity

INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park,

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S): S. Korea

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KI					KIN	D	DATE		APPLICATION NO.						D	DATE			
WO 2004100681			A1 20041125			,	WO 2004-KR410					20040227							
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,		
		CN,	CO,	CR,	CU,	CZ,	DΕ,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	ΚP,	ΚZ,	LC,	LK,		
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	NO,		
		NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	TJ,		
		TM,	TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW			
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		BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,		
		ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,		
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ΜL,	MR,	ΝE,	SN,	TD,	TG	
KR	KR 2004099587 A 20041202				]	KR 2	003-3	3161	5		20	0030	519						
ΕP	1631	155			A1		2006	0308	1	EP 2	004-	7155′	73		20	0402	227		
			•		GB,														
JP	JP 2006518190				T		2006	0810	,	JP 20	005-	51849	55		20	00402	227		

US 2005232999 A1 20051020 US 2004-518419 20041217
PRIORITY APPLN. INFO.: KR 2003-31616 A 20030519
WO 2004-KR410 W 20040227

WO 2004-KR410 W 20040227

AB The present invention relates to a method for producing a chitosan-bound salt having the function of lowering blood pressure. The method comprises

salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:999284 CAPLUS

DOCUMENT NUMBER: 142:279143

TITLE: Process for producing salted fish with seaweeds

powder, mugwort extract, green tea extract and

chitosan solution

INVENTOR(S): Kim, Deuk Gi

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

KR 2003094199 A 20031211 KR 2003-83704 20031124

PRIORITY APPLN. INFO.: KR 2003-83704 20031124

PRIORITY APPLN. INFO.:

AB A process for producing a salted fish with seaweeds powder, a mugwort extract, a green tea extract and a chitosan solution is provided, thereby preventing adult diseases, removing fishy smell, and preserving freshness of the fish for a long time. The process comprises the steps of: washing and removing internal organs of fish; spraying salts on the fish; spraying seaweeds powder on the surface of the fish; maturing the salted and seaweeds powder sprayed fish; and packaging the matured fish under vacuum condition, wherein the seaweeds include tangleweed, brown seaweed and brown algae; the matured fish may be further dipped in mugwort or green tea extract; the matured fish may be further coated with a chitosan solution

L42 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:869406 CAPLUS

DOCUMENT NUMBER: 142:154620

TITLE: Manufacturing method of new functional salt and

development of use thereof

INVENTOR(S): Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

 PRIORITY APPLN. INFO.: KR 2000-60499 20001006

AB A manufacturing method of new functional salt and development of use thereof are

provided, which has effects of decreasing blood pressure and antibiosis, by stirring salt and  $\alpha\text{-chitosan}$  after dissolving salt to be 20-23% of the saturated solution. New functional salt contains 0.1-5% of chitosan dissolved in a salt solution and chitosan is dried and crystallized  $\alpha\text{-chitosan}$  is obtained from shells of crab and shrimp and  $\beta\text{-chitosan}$  is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a chloride ion of salt. The content of the chitosan is 0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a chitosan salt solution. For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan.

L42 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:829916 CAPLUS

DOCUMENT NUMBER: 142:448486

TITLE: Structural characteristics and sorption ability of

chitosan microgranules

AUTHOR(S): Adamiec, Janusz; Modrzejewska, Zofia

CORPORATE SOURCE: Wydz. Inz. Procesowej i Ochrony Srodowiska, Politech.

Lodzka, Lodz, 90-924, Pol.

SOURCE: Inzynieria Chemiczna i Procesowa (2004), 25(3/1),

543-548

CODEN: ICPRDT; ISSN: 0208-6425

PUBLISHER: Oficyna Wydawnicza Politechniki Wroclawskiej

DOCUMENT TYPE: Journal LANGUAGE: Polish

AB Microgranules were formed by means of spray drying of two chitosan salts: acetate and ascorbate. To reduce solubility, glutaraldehyde and sodium triphosphate were added to the solution Dry microgranules as a product of different chemical composition had different structural characteristics: shape, size, d., and volume, and area of pores. Sorption ability of these microgranules was investigated by measuring the sorption of benzene and carbon dioxide (in a highly-vacuum sorptive instrument).

L42 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:77658 CAPLUS

DOCUMENT NUMBER: 141:42688

TITLE: Chitosan salts as nasal sustained

delivery systems for peptidic drugs

AUTHOR(S): Cerchiara, T.; Luppi, B.; Bigucci, F.; Zecchi, V.

CORPORATE SOURCE: Department of Pharmaceutical Sciences, Bologna, 40127,

Italy

SOURCE: Journal of Pharmacy and Pharmacology (2003), 55(12),

1623-1627

CODEN: JPPMAB; ISSN: 0022-3573

PUBLISHER: Pharmaceutical Press

DOCUMENT TYPE: Journal LANGUAGE: English

AB The aim of this study was to describe a sustained drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behavior of vancomycin hydrochloride from the phys. mixts. at pH 5.5 and 7.4. In-vitro release of vancomycin was

retarded by chitosan salts and, in particular,

chitosan hydrochloride provided the lowest release of vancomycin.

REFERENCE COUNT:

21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2003:795160 CAPLUS

DOCUMENT NUMBER:

140:43678

TITLE:

Alkaline chitosan solutions

AUTHOR (S):

Muzzarelli, Corrado; Tosi, Giorgio; Francescangeli,

Oriano; Muzzarelli, Riccardo A. A.

CORPORATE SOURCE:

Faculty of Medicine, Institute of Biochemistry,

Polytechnic University of Marche, Ancona, IT-60100,

Italy

SOURCE:

Carbohydrate Research (2003), 338(21), 2247-2255

CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER:

Elsevier Ltd.

DOCUMENT TYPE:

Journal LANGUAGE: English

Rigid and transparent hydrogels were obtained upon pouring chitosan salt solns. into saturated ammonium hydrogen carbonate. Incubation at 20 °C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO2-NH4+ a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, mol. sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate, and lactate salts. Their hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solns. at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 °C). Citrate could cross-link chitosan and impart insoly. to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH4HCO3 treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solns. of mixed chitosan carbamate and alginate were spray-dried at 115 °C to manufacture chitosan-alginate microspheres having prevailing diameter approx 2

REFERENCE COUNT:

44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2003:566810 CAPLUS

DOCUMENT NUMBER:

140:64869

TITLE:

Controlled release of vancomycin from freeze-dried

chitosan salts coated with different

fatty acids by spray-drying

AUTHOR (S):

Cerchiara, T.; Luppi, B.; Bigucci, F.; Petrachi, M.;

Orienti, I.; Zecchi, V.

CORPORATE SOURCE:

Department of Pharmaceutical Sciences, University of

Bologna, Bologna, 40127, Italy

SOURCE:

Journal of Microencapsulation (2003), 20(4), 473-478

CODEN: JOMIEF; ISSN: 0265-2048

PUBLISHER:

Taylor & Francis Ltd.

DOCUMENT TYPE:

Journal English

LANGUAGE:

The aim of this study was to describe a controlled drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan aspartate, chitosan glutamate and chitosan

hydrochloride were prepared by freeze drying and coated with stearic, palmitic, myristic and lauric acids by spray-drying technique.

Vancomycin hydrochloride was used as a peptidic model drug whose sustained

release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts on the release behavior of vancomycin hydrochloride from the freeze-dried and spray-dried systems at pH 2.0 and 7.4.

REFERENCE COUNT:

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS 11 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:658743 CAPLUS

DOCUMENT NUMBER:

137:190771

TITLE:

Chitosan-containing solution for prophylactic

treatment of teats of lactating animals

INVENTOR(S):

Hellman, Asa; Mathisen, Torbjorn

PATENT ASSIGNEE(S):

Swed.

SOURCE:

was

U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.					KIND DATE				APPLICATION NO.					DATE			
	US	2002	 1199	49		A1	A1 20020829				US 2	001-	 7917:	39		2	20010226 20020225 20020225 , CH, CN, , GE, GH, , LK, LR, , OM, PH, , TT, TZ, , AZ, BY, , FR, GB, , CM, GA, 20020225 , MC, PT,	
	CA	2439	465			A1		2002	0906		CA 2	002-	2439	465		2	0020	225
	WO	NO 2002067952				A1	A1 20020906				WO 2002-SE318						0020	225
	WO	2002	0679	52		A8		2004	0521									
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
			PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,
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														-	-	-	-	-
			GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,
			GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG	•	-	•	•	-	•	•
	ΕP	1372	672		,	A1		2004	0102		EP 2	002-	7009	37		2	0020	225
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR	•	•	•		•	•
	BR	2002	0075	31		A		2004	0309		BR 2	002-	7531			2	0020	225
	JΡ	2005	50883	35		Т		2005	0407	,	JP 2	002-	5673	18		2	0020	225
PRIO		Y APP										001-				A 20	00102	226
										1	WO 2	002-	SE31	В	Ī	v 2	0020	225
70.77	7			7 4		£		1 7								1		

An aqueous solution for prophylactic treatment of teats of lactating cows AB comprises as a first component at least partially deacetylated chitosan or its acid addition salt in a concentration of up to about 2% by weight of chitosan. A

pH solution of the solution is adjusted to about 4-6.8 by the addition of a mineral

or organic acid. The first component has a mol. weight such that the viscosity of the solution is < 50 mPas. The aqueous solution further comprises a second component selected from heparin, heparan sulfate, and dextran sulfate, the weight ratio between the first and second components being from about 10:1 to about 100:1. For example, 5.8 g 87% glycerol was added to 95 mL of water and 0.3 mL acetic acid (99.9%) was added to the glycerol solution under stirring until a homogeneous solution was obtained. To the solution prepared

then added 1.0 g chitosan (MW of about 80 kD, deacetylation degree 94% (Primex)) and stirring was maintained until all chitosan has been dissolved. The pH of this solution was about 5.2. The solution showed improved

stability and resulted in a viscosity lying within the preferred range and

enabling easy handling in connection with the application to the teats.

L42 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:335241 CAPLUS

DOCUMENT NUMBER: 138:175642

TITLE: Influence of different chitosan

salts on the release of sodium diclofenac in

colon-specific delivery

AUTHOR(S): Orienti, I.; Cerchiara, T.; Luppi, B.; Bigucci, F.;

Zuccari, G.; Zecchi, V.

CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of

Bologna, Bologna, 40127, Italy

SOURCE: International Journal of Pharmaceutics (2002),

238(1-2), 51-59

CODEN: IJPHDE; ISSN: 0378-5173

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Chitosan (CH) was dissolved in aqueous solns. containing aspartic, glutamic,

hydrochloric, lactic and citric acids to obtain different chitosan

salts. Chitosan salts were collected from the

solns. by spray-drying and the powders obtained were mixed with

Sodium Diclofenac (SD), taken as a model anti-inflammatory drug. This

study evaluated in vitro the influence of acid type on the release

behavior of SD from the phys. mixture during gastrointestinal transit. The

phys. mixture of the chitosan salts with SD provided

slower drug release than the pure drug both in acidic and alkaline pHs. In addition, the interaction with  $\beta$ -glucosidase at pH 7.0 enhanced the

release rate. Among the chitosan salts used, glutamic

and aspartic salts provided the best control of release.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS

L42 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2002:123584 CAPLUS

DOCUMENT NUMBER:

136:184114

TITLE:

Preparation of therapeutic water-soluble salts of

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

2-difluoromethyl-2,5-diaminopentanoic acid and

polycations

INVENTOR(S): Hebert, Rolland F.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 4 pp.

CODEN: USXXCO

DOCUMENT TYPE:

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002019338	A1	20020214	US 2001-919692	20010731
US 6630511	B2	20031007	·	
US 2004006045	A1	20040108	US 2003-614713	20030707
PRIORITY APPLN. INFO.:			US 2000-222420P	P 20000801
			US 2001-919692	A3 20010731

AB Water-soluble salts of 2-difluoromethyl-2,5-diaminopentanoic acid (DFMO) with polycations (e.g., 80% deacetylated chitosan) are prepared and their therapeutic uses described.

L42 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:781455 CAPLUS

DOCUMENT NUMBER: 135:335172

TITLE: Therapeutically improved salts of azelaic acid

INVENTOR(S):
Hebert, Rolland F.

PATENT ASSIGNEE(S):

Hebert, Rolland, USA

SOURCE:

U.S. Pat. Appl. Publ., 4 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

English

LANGUAGE:

17

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
				·
US 2001034321	A1	20011025	US 2001-791358	20010223
US 6734210	B2	20040511		

PRIORITY APPLN. INFO.:

US 2000-184750P

Stable salts of azelaic acid with polycations such as chitosan are described. The salts according to the invention are water-soluble, therapeutically more efficacious and are valuable for use as active constituents in pharmaceutical as well as cosmeceutical compns. A salt was prepd, by the reaction of azelaic acid with chitosan. A 20% cream prepared from the above salt was applied to the fore-arm of 10 individuals. After 2 wk, no redness, irritation or scaling was observed

REFERENCE COUNT:

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## (FILE 'HOME' ENTERED AT 11:43:50 ON 04 JAN 2007)

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L4
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L5
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L6
L7
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L8
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L12
L13
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L14
            2 S L12 AND BIND?
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L15
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L17
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L24
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L32 .
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          182 S ?CHITOSAN-LACTATE?
L34
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L35
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L37
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           11 S L35 NOT L36
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            8 S L38 NOT L37
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L41
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           26 S L40 AND SPRAY?
L42
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(FILE 'HOME' ENTERED AT 11:43:50 ON 04 JAN 2007)

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FILE 'CAPLUS, MEDLINE' ENTERED AT 11:44:08 ON 04 JAN 2007
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Ll
             32 S CHITOSAN? (P) SALT? (P) SPRAY? (P) WATER?
L2
             12 S CHITOSAN? (P) SALT? (P) SPRAY? (P) WATER? (P) DRY?
L3
              9 S CHITOSAN? (P) SALT? (P) SPRAY? (P) WATER? (P) DRIED
L4
             1 S CHITOSAN? (P) SALT? PARTICLES (P) SPRAY?
L5
             2 S CHITOSAN? (P) SALT? (P) BLOOD PRESSURE (P) SPRAY?
             11 S CHITOSAN? (P) SALT? (P) BLOOD PRESSURE
L7
             11 S CHITOSAN? (P) ?SALT? (P) BLOOD PRESSURE
            77 S CHITOSAN? (P) ?SALT? (P) SPRAY?
            31 S CHITOSAN? (P) ?SALT? (P) SPRAY? (P) DRY?
L10
            19 S L10 NOT L3
L11
L12
            46 S L9 NOT L10
            0 S L12 AND ADHER?
L13
             2 S L12 AND BIND?
L14
            45 S L12 AND ON SALT?
L15
L16
             0 S L12 AND "ON SALT"
             0 S L12 AND "SPRAYING CHITOSAN"
L17
             0 S L12 AND "SPRAYING THE CHITOSAN"
L18
             0 S L12 AND "SPRAYED THE CHITOSAN"
L19
            10 S L12 AND CHITOSAN-SALT?
L20
L21
            35 S L15 NOT L20
            36 S L12 NOT L20
L22
           333 S CHITOSAN-CONTAIN?
L23
L24
             0 S CHITOSAN-CONTAIN? SALT?
             0 S ?CHITOSAN-CONTAIN? SALT?
L25
             1 S ?CHITOSAN-SALT? (P) BLOOD PRESSURE?
L26
            12 S ?CHITOSAN-SALT? (P) SPRAY? ON
L27
             0 S ?SALT? BOUND TO CHITOSAN?
L28
             0 S ?SALT? CONTAIN? CHITOSAN?
L29
             0 S ?CHITOSAN-CONTAIN? COMPOUND?
L30
             5 S ?CHITOSAN-CONTAIN? COMPO?
L31
             0 S ?CHITOSAN-SALT COMPO?
L32
L33
             0 S ?CHITOSAN-SALT MIXTURE?
           182 S ?CHITOSAN-LACTATE?
L34
            15 S L34 AND SPRAY?
L35
             4 S L35 AND DRY?
L36
             4 S L35 AND DRIED
L37
            11 S L35 NOT L36
L38
L39
            8 S L38 NOT L37
           330 S ?CHITOSAN-SALT?
L40
            2 S L40 AND SALT PARTICLES?
L41
            26 S L40 AND SPRAY?
L42
```

L3 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1277288 CAPLUS

TITLE: Salt resistance and its mechanism of cucumber under

effects of exogenous chemical activator

AUTHOR(S): Song, Shiqing; Liu, Wei; Guo, Shirong; Shang, Qingmao;

Zhang, Zhigang

CORPORATE SOURCE: Department of Horticulture and Gardening, Hebei Normal

University of Science and Technology, Changli, 066600,

Peop. Rep. China

SOURCE: Yingyong Shengtai Xuebao (2006), 17(10), 1871-1876

CODEN: YSXUER; ISSN: 1001-9332

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal LANGUAGE: Chinese

With root injection and foliar spray, this paper studied the effects of different concns. salicylic acid, brassinolide, chitosan and spermidine on the growth, morphogenesis, and physiol. and biochem. characters of cucumber (Cucumis sativus L.) seedlings under 200 mmol  $\cdot$  L-1 NaCl stress. The results showed that at proper concns., these four exogenous chemical activators could markedly decrease the salt stress index and mortality of cucumber seedlings, and the decrement induced by 0.01 mg  $\cdot$  L-1 brassinolide was the largest, being 63.0% and 75.0%, resp. The activities of superoxide dismutase (SOD), peroxidase (POD) and catalase (CAT) increased significantly, resulting in a marked decrease of malondialdehyde (MDA) content and electrolyte leakage. The dry weight water content and morphogenesis of cucumber seedlings improved, and the stem diameter, leaf number, and healthy index increased significantly. All of these suggested that exogenous chemical activators at proper concns. could induce the salt resistance of cucumber, and mitigate the damage degree of salt stress. The salt resistance effect of test exogenous chemical activators decreased in the sequence of 0.005 .apprx. 0.05 mg · L-1 brassinolide, 150 .apprx. 250 mg · L-1 spermidine, 100 .apprx. 200 mg · L-1 chitosan, and 50 .apprx. 150 mg · L-1 salicylic acid.

L3 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:752406 CAPLUS

DOCUMENT NUMBER: 145:187492

TITLE: Film-forming liquid composition for preservation of

salted pork in jelly

INVENTOR(S): Chang, Zhongyi; Zhao, Ning; Wang, Chunsheng
PATENT ASSIGNEE(S): Nanjing Yurun Food Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 4 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	CN 1806567	Α	20060726	CN 2006-10038056	20060126
PRIO	RITY APPLN. INFO.:			CN 2006-10038056	20060126
AB	The title liquid co	mpositi	on comprises	food-grade lactic acid	1 0.8-2%,
	chitosan 0.8-1.2%,	nisin 0	.008-0.012%,	and water as	
	balance. The compo	sition	is sprayed o	nto salted pork in	
	ielly and can form	a prese	rvative film	after air-drying, which	:h
	can destroy microbi	alenzv	me system, p	rohibit microbial respi	ration, and
	kill hacteria by in	fluenci	ng cell wall	permeability and prohi	biting
	symthesis of soll w	all W	ith the nres	ervative film, the stor	age life of
	salted pork in jell	a11. W	ARC is prolo	nged for about 15	
	saited pork in jeil	y at 0-	t on the one	nged for about 15	lted
	days without advers	e effec	t on the app	earance and taste of sa	1100

pork in jelly.

ANSWER 3 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:723693 CAPLUS

DOCUMENT NUMBER:

145:165999

TITLE:

Method for manufacturing chitosan-containing toasted

laver

INVENTOR(S):

Jung, Bong Im

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	KR 2004050265	Α	20040616	KR 2002-78050	20021210
PRTO	RITY APPLN. INFO.:				20021210
AB	A method for manufa	cturing	chitosan co	ntaining toasted laver	is used to
1110	improve taste, flav	or, and	nutrients o	f toasted laver and to	enhance
	health herefits M	anufact	ure comprise	s the steps of: drying	fresh
	layer to a water co	ntent o	f 15-18%: co	vering the dried laver	
	with mixed oil cone	isting	of 80-90% so	ybean oil and 10-20% se	esame oil;
	with mixed off tons	recrud ,	or ou jui bo	220° for 3-7 s; covering	ng the
	toasting the oil-co	vered I	aver at 100-	220 101 5-7 5, covers	.11.
				; drying crustacean she	5112
	at 40-600 for 4-5 h	and nu	lverizing to	obtain a chitosan	

at 40-60° for 4-5 h and pulverizing to obtain a chitosan powder; spraying the chitosan powder and salt on the toasted laver; toasting the chitosan- and saltsprayed laver at 280-320° for 3-7 s; and cutting and packaging the toasted laver.

ANSWER 4 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:47114 CAPLUS

DOCUMENT NUMBER:

144:240009

TITLE:

Reverse temperature sensitive in-situ formation type

implanting agent for injection

INVENTOR(S):

Lin, Ying; Zhu, Dequan; Ding, Fuxin; Zan, Jia; Jiang,

Guogiang

PATENT ASSIGNEE(S):

Tsinghua University, Peop. Rep. China

SOURCE:

Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.

CODEN: CNXXEV

DOCUMENT TYPE:

Patent

LANGUAGE:

Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION 1	NO.	DATE						
	CN 1631357	A	20050629	CN 2004-10009	9786	20041112						
PRIO	RITY APPLN. INFO.:			CN 2004-10009	9786	20041112						
AB	The process comprise	es disso	olving or su	spending the o	cellulose o	derivative						
	AB The process comprises dissolving or suspending the cellulose derivative salting-out salt in release sustaining/controlling											
	microencapsulating of	nateria:	l solution,	spray drying t	to							
	obtain microencapsu	lated sa	alt; dissolv:	ing the cellul	lose deriva	ative,						
	polyethylene glycol.	. and tl	ne microenca	psulated salt	in							
	water to the concent	ration	of 1-3.5, 1	-15, and 1-309	t, resp., s	sterilizing,						
	and freeze drying.	The ce	llulose deri	vative is hyd:	roxypropyl							
	ana 110000 ang-115.		111	Et hydroxyoth	والألفي ليط	se and/or						

cellulose, hydroxypropyl Me cellulose, Et hydroxyethyl cellulose, and/or Me cellulose. The salt is chloride, phosphate, sulfate, lactate, or citrate. The microencapsulating material is Na CM-cellulose, hydroxypropyl Me cellulose, cellulose acetate, Et cellulose, cellulose acetate phthalate, acrylic resin, gelatin, and/or chitosan.

ANSWER 5 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

2005:414487 CAPLUS ACCESSION NUMBER:

142:487632 DOCUMENT NUMBER:

Hydrotalcite-based blood purifying adsorbent and its TITLE:

preparation

Ye, Ying; Zheng, Libo; Wang, Pu; Shen, Zhongyue; INVENTOR(S):

Zhong, Huaiyang

PATENT ASSIGNEE(S):

Zhejing University, Peop. Rep. China

Faming Zhuanli Shenqing Gongkai Shuomingshu, 8 pp. SOURCE:

CODEN: CNXXEV

Patent DOCUMENT TYPE:

Chinese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1431043	Α	20030723	CN 2003-115015	20030120
PRIORITY APPLN. INFO.:			CN 2003-115015	20030120
AP The blood purifying	adeorh	ent a chite	san or gelatin-like	

The blood purifying adsorbent, a chitosan or gelatin substance-encapsulated hydrotalcite-[M1- xIIMIIIx(OH)2]Ax mH2O (MII = Mg2+, Zn2+, Fe2+, or other divalent metal ion; MIII = trivalent metal ion; A = Cl- or NO3-; and x = 0.2-0.33), is prepared by adding hydrotalcite in 1-8% chitosan-1-8% gelatin-like substance solution, heating at 30-60°C for 2-6 h under bubbling N2, spraying into 0.1-5% NaOH solution to solidify, separating, washing, and vacuum drying. gelatin-like substance is gelatin, agar, and/or agarose. The hydrotalcite is prepared by dissolving Mg salt and Al salt in water to obtain 0.5-1.0M Mg salt-0.2-0.5M Al salt solution, co-dropping with 1.5-2.5M NaOH solution in water under bubbling N2, stirring at 50-80°C for 10-24 h, vacuum drying, and grinding to <200 mesh. The Mg salt is MgCl2 or Mg(NO3)2. The Al salt is AlCl3 or Al(NO3)3.

ANSWER 6 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

2004:1015840 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 141:428027

Method for producing a chitosan-bound salt with TITLE:

antihypertensive activity

Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park, INVENTOR (S):

Hyun Jin; Kim, In Cheol

S. Korea PATENT ASSIGNEE(S):

PCT Int. Appl., 22 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			KIN	D DATE		APPLICATION NO.					DATE					
				-				- <b></b>								
WO 20041	100681		A1		2004	1125	1	WO 2004-KR410					20040227			
W:.	AE, AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
	CN, CO,	CR.	CU,	CZ.	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
	GE, GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KZ,	LC,	LK,	
	LR, LS,	LT.	LU,	LV,	MA,	MD,	MG,	MK,	MN,	`MW,	MX,	ΜZ,	NA,	NI,	NO,	
	NZ, OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,	
	TM, TN,															
RW:	BW, GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŬĠ,	ZM,	ZW,	AM,	ΑZ,	
	BY, KG,	KZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
	ES, FI,	FR.	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
	TR, BF,	ВJ,	CF.	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG
KR 2004099587												20	0030	519		

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20040227
                              20060308
                                         EP 2004-715573
                        A1
    EP 1631155
        R: DE, ES, FR, GB, IT
                                                               20040227
                              20060810
                                          JP 2005-518455
    JP 2006518190 T
                                          US 2004-518419
                                                               20041217
                              20051020
                        A1
    US 2005232999
                                                            A 20030519
PRIORITY APPLN. INFO.:
                                          KR 2003-31616
                                                            W 20040227
                                          WO 2004-KR410
```

The present invention relates to a method for producing a chitosan -bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystq. step.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:726046 CAPLUS

DOCUMENT NUMBER: 142:62449

TITLE: Characterization of chitosan acetate as a binder for

sustained release tablets

AUTHOR(S): Nunthanid, J.; Laungtana-anan, M.; Sriamornsak, P.;

Limmatvapirat, S.; Puttipipatkhachorn, S.; Lim, L. Y.;

Khor, E.

CORPORATE SOURCE: Department of Pharmaceutical Technology, Faculty of

Pharmacy, Silpakorn University, Nakhon Pathom, 73000,

Thailand

SOURCE: Journal of Controlled Release (2004), 99(1), 15-26

CODEN: JCREEC; ISSN: 0168-3659

PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A chitosan derivative as an acetate salt was successfully prepared by a spray drying technique. Physicochem. characteristics and micrometric properties of spray-dried chitosan acetate (SD-CSA) were studied as well as drug-polymer and excipient-polymer interaction. SD-CSA was spherical agglomerates with rough surface and less than 75 µm in diameter. The salt was an amorphous solid with slight to moderate hygroscopicity. The results of Fourier transform IR (FTIR) and solid-state 13C NMR spectroscopy demonstrated the functional groups of an acetate salt in its mol. structure. DSC and TGA thermograms of SD-CSA as well as FTIR and NMR spectrum of the salt, heated at 120°C for 12 h, revealed the evidence of the conversion of chitosan acetate mol.

structure to N-acetylglucosamine at higher temperature  $\,$  No interaction of SD-CSA  $\,$ 

with either drugs (salicylic acid and theophylline) or selected pharmaceutical excipients were observed in the study using DSC method. As a wet granulation binder, SD-CSA gave theophylline granules with good flowability (according to the value of angle of repose, Carr's index, and Hausner ratio) and an excellent compressibility profile comparable to a pharmaceutical binder, PVP K30. In vitro release study of theophylline from the tablets containing 3% weight/weight SD-CSA as a binder demonstrated sustained drug release in all media. Cumulative drug released in 0.1 N HCl, pH 6.8 phosphate buffer and distilled water was nearly 100% within 6, 16 and 24 h, resp. It was suggested that the simple incorporation of spray-dried chitosan acetate as a tablet binder could give rise to controlled drug delivery systems exhibiting sustained drug release.

THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS 46 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 8 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:272084 CAPLUS

DOCUMENT NUMBER:

136:261821

TITLE:

Method comprising flocculation clarification and ultrafiltration concentration of producing composite

immunoreactive proteins from chicken egg

INVENTOR(S):

Yang, Yanjun

PATENT ASSIGNEE(S):

Jiangnan Univ., Peop. Rep. China

SOURCE:

Faming Zhuanli Shenqing Gongkai Shuomingshu, 8 pp.

APPLICATION NO.

DATE

\_\_\_\_\_

CODEN: CNXXEV

KIND DATE

DOCUMENT TYPE:

Patent

LANGUAGE:

Chinese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

	CN 1312295	A	20010912	CN 2001-108225	20010221
	CN 1129609	В	20031203		
חדממ	RITY APPLN. INFO.:			CN 2001-108225	20010221
	RIII AFIBA: INIO				cacting with
AB	The process compris	es isor	ating egg yo	lk from fresh egg; ext	accing with
	water at pH 4.8-7.7	for 5-	25 min; cent	rifuging or precipitat:	ing for 5-18 n
	to obtain egg volk	extract	: flocculati	ng with 0.2-1.1% flocci	lant (composed
	- f lubla Ca malt	anah sa	C2 (0) (1) 2 0x	Ca lactate, chitosan	
	of soluble ca sait	sucii as	Ca (OAC) Z OI	t at a matic of 0 02 0	2.0-0 12:0 16-
	, and phosphate suc	h as Na	3P04 or K3P0	4 at a ratio of 0.02-0	
	0.68) at pH 4.5-8.5	for 5-	20 min; stan	ding for 20-60 min; fi	ltering or
	centrifuging ultra	filteri	ng with ultr	afilter membrane (such	as cellulose
	centrifuging, arera	edition	nolveulfone	membrane, polyether su	ılfone
	acetate membrane, m	logitien	CI 'J		with 0 22
	membrane, or polyvi	nyliden	ie fluoride m	membrane); sterilizing	WICH 0.22
	um ultrafilter memb	rane; a	nd freezing	at -30 to -50°C for 24	n.
	Fresh eggs are coll	ected f	rom chicken	immunized with pathogen	nic bacteria
	fresh eggs are corr		c or caries	bacteria. The content	t of
	from numan intestin	ie, viru	is, of carres	Dacteria. The content	lated shicken
	transferrin in the	immunor	eactive prot	ein was >10%. The iso	lated Chicken
	immunoreactive prot	eins co	mprising Igs	. and transferrin are	usetul as
	nutrition supplemen	t for i	nfant formul	a. The method also pro	oduces
	nuclicion supplemen	1	le mandaw and	logg white nowder by si	rav
	byproducts such as	egg-yor	k powder and	l egg-white powder by s	J.Lu.J
	-drying for food pu	rpose.			
		_			

ANSWER 9 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:23468 CAPLUS

DOCUMENT NUMBER:

130:100718

TITLE:

Toilet seat cleaners containing chitosan and

quaternary ammonium salts

Takano, Izumi; Takahashi, Yukiko

INVENTOR(S): PATENT ASSIGNEE(S):

Nippon Soda Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 4 pp.

SOURCE:

CODEN: JKXXAF

Patent

DOCUMENT TYPE:

Japanese

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11001700	A	19990106	JP 1997-157205	19970613 19970613
PRIORITY APPLN. INFO.:			JP 1997-157205	199/0013

The cleaners contain chitosan and quaternary ammonium AΒ salts, preferably benzalkonium chloride (I). The cleaners are directly sprayed over a toilet seat or used by impregnating cotton, gauze, or nonwoven fabrics with them. The cleaners show long-lasting disinfectant effect. Water 40, glacial acetic acid

0.13, Flonac C 0.25, I 0.1, glycerin 1.0, and EtOH 47.4 weight parts were mixed to give a toilet cleaner. The cleaner showed quick drying property and good antibacterial effect.

ANSWER 10 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

1995:690526 CAPLUS ACCESSION NUMBER:

123:226085 DOCUMENT NUMBER:

Surface structures and surface-active components in TITLE:

food emulsions

Bergenstaahl, Bjoern; Faeldt, Pia; Malmsten, Martin AUTHOR(S):

INSTITUTE SURFACE CHEMISTRY, Stockholm, S-114 86, CORPORATE SOURCE:

Swed.

Special Publication - Royal Society of Chemistry SOURCE:

(1995), 156 (Food Macromolecules and Colloids), 201-14

CODEN: SROCDO; ISSN: 0260-6291

Royal Society of Chemistry PUBLISHER: Journal; General Review DOCUMENT TYPE:

English LANGUAGE:

A review, with 23 refs. Food emulsions are complex mixts., and they usually contain both low-mol.-weight surface active lipids and a versatile range of more or less surface-active proteins and polysaccharides. In systems containing several surface-active components, 3 types of adsorbed layers can be identified, based on how the layers are formed. The properties of these adsorption structures (competitive adsorption, associative adsorption, and layered adsorption) are discussed, and examples demonstrating these ideas in different systems are presented. Competitive adsorption at the air-water interface during spray drying, adsorption of apoproteins to phospholipid surfaces, adsorption of chitosan to bile salt + phospholipid surfaces, adsorption of hydrocolloids to emulsifier surfaces, and other topics are detailed.

ANSWER 11 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

1991:635078 CAPLUS ACCESSION NUMBER:

115:235078 DOCUMENT NUMBER:

Nonwood fiber-based paper with good printability TITLE:

Kanayama, Nozomi; Endo, Akitaro INVENTOR(S): Daifuku Seishi K. K., Japan PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 5 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE							
	<b></b>			<b></b>							
JP 03167388	Α	19910719	JP 1989-308119	19891127							
PRIORITY APPLN. INFO.:			JP 1989-308119	19891127							
AB The title paper is water-insol. fibro	s made fi	com pulps co ellulose and	ontaining bast and/or l I salts and is	eaf fibers and							
coated with chitos	coated with chitosan at least on its printing surface. Thus,										
handsheets (basis	weight 4	10 g/m2) of	90:10 manila hemp fibe	ers and							
CM-cellulose (degi	ree of su	ubstitution	0.33) were sprayed wit	in a							
.apprx.2% solution	n of 1:1 dried at	chitosan-gl : 120° on a	ycolic acid (dry mirror drum. The shee without CM-cellulose	ts had							

MEDLINE on STN ANSWER 12 OF 12 ACCESSION NUMBER: 2004437121 MEDLINE PubMed ID: 15342177

DOCUMENT NUMBER:

Characterization of chitosan acetate as a binder for

TITLE: sustained release tablets.

Nunthanid J; Laungtana-Anan M; Sriamornsak P; Limmatvapirat AUTHOR:

S; Puttipipatkhachorn S; Lim L Y; Khor E

Department of Pharmaceutical Technology, Faculty of CORPORATE SOURCE:

Pharmacy, Silpakorn University, Nakhon Pathom 73000,

Thailand.. jurairat@email.pharm.su.ac.th

SOURCE: Journal of controlled release : official journal of the

Controlled Release Society, (2004 Sep 14) Vol. 99, No. 1,

pp. 15-26.

Journal code: 8607908. ISSN: 0168-3659.

PUB. COUNTRY:

Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200503

ENTRY DATE:

Entered STN: 3 Sep 2004

Last Updated on STN: 5 Mar 2005 Entered Medline: 4 Mar 2005

A chitosan derivative as an acetate salt was AΒ successfully prepared by using a spray drying technique. Physicochemical characteristics and micromeritic properties of spray-dried chitosan acetate (SD-CSA) were studied as well as drug-polymer and excipient-polymer interaction. SD-CSA was spherical agglomerates with rough surface and less than 75 microm in diameter. The salt was an amorphous solid with slight to moderate hygroscopicity. The results of Fourier transform infrared (FTIR) and solid-state (13)C NMR spectroscopy demonstrated the functional groups of an acetate salt in its molecular structure. DSC and TGA thermograms of SD-CSA as well as FTIR and NMR spectrum of the salt , heated at 120 degrees C for 12 h, revealed the evidence of the conversion of chitosan acetate molecular structure to N-acetylglucosamine at higher temperature. No interaction of SD-CSA with either drugs (salicylic acid and theophylline) or selected pharmaceutical excipients were observed in the study using DSC method. As a wet granulation binder, SD-CSA gave theophylline granules with good flowability (according to the value of angle of repose, Carr's index, and Hausner ratio) and an excellent compressibility profile comparable to a pharmaceutical binder, PVP K30. In vitro release study of theophylline from the tablets containing 3% w/w SD-CSA as a binder demonstrated sustained drug release in all media. Cumulative drug released in 0.1 N HCl, pH 6.8 phosphate buffer and distilled water was nearly 100% within 6, 16 and 24 h, respectively. It was suggested that the simple incorporation of spray-dried chitosan acetate as a tablet binder could give rise to controlled drug delivery systems exhibiting sustained drug release.

L4 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:723693 CAPLUS

DOCUMENT NUMBER:

145:165999

TITLE:

Method for manufacturing chitosan-containing toasted

INVENTOR(S):

Jung, Bong Im

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PRIC AB	ORITY APPLN. INFO.:  A method for manufaimprove taste, flave health benefits. Moreover water content of 15 mixed oil consisting the oil-covered lave.	acturing for, and fanufact 5-18%; c ag of 80 for at 1 the mix ad pulve ac chito er; toas 80-320°	chitosan co nutrients o ure comprise overing the -90% soybean 80-220° for ed oil; dryi rizing to ob san powder a ting the chi for 3-7 s; a	oil and 10-20% sesame 3-7 s; covering the firing crustacean shells at tain a chitosan nd salt tosan- and salt-	is used to enhance fresh laver to a oil; toasting

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:1106018 CAPLUS

TITLE:

Production method of miinsol milk

INVENTOR(S):

Suh, Young Hun

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PRIO AB	good for lung and l elements (metal, woo chitosan and extractimprove physical he diseases. The 72 k elements (metal, woo colors (blue, red, y sour, salty, bitter method is character mixture of the 72 k mash fibroid materian extra basket at extract occasionallof aging and steamin	or products or products of picture and pic	20010605  ducing Miinson testine belower, fire, and constitution foods can be for any fire, and white, and boungent tasted the following foods for 2 the mixture; eg.C for 72hr teaming for more time; (	KR 1999-49042 KR 1999-49042 In milk comprising 72 king to metal among the learth), with calcium, or sprouts is provided, on and prevent or treated earth), the five cardidack) and the five tast (lack) and the five tast (lack) and the prevent or treated that (i) aging the prepared with spraying herb 4hr; (iii) repeating the steat (v) extract; and then (v) get and some content of the cardidate of	19991105 inds of foods five  to c geriatric to the five inal ces(the sweet, ing a powdered a roller to d materials in ne processes amed materials

milk by mixing calcium, chitosan and extract of pine needles or sprouts with the mixture of milk and the extract. The 72 kinds of foods includes 2.0% of arrowroot, 1.0% of bean sprouts, 35.0% of wild edible greens, 9% of pine needles, 10.0% of Rhynchosia Nulubilis, 1.0% of black bean and adzuki bean, 0.3% of mung beans, 1.0% of arrowroot sprout, 2.0% of pine mushroom, 0.3% of sesame leaf, 2.0% of leek, 1.0% of Indian millet, 1.5% of millet, 10.0% of brown rice, 0.3% each of bean, Artemisia capillaris Thunb., Indangssuk, mugwort, kale, carrot, cabbage, anchovy, dropwort, bean sprouts, dried walleye pollack, Angelica gigas Nakai, spinach, Chinese bellflowers, corn, perilla seed, foxtail millet, barley, black sesame, wild rocambole, Jobs-tear, glutinous rice, sesame, green laver, pine pollen, Hizikia fusiformis, pine buds, brown seaweed, tangleweed, bamboo sprout, sunflower seeds, mulberry leaves, jujube and dropwort, 2.0% of shiitake mushroom, 0.3% of walnut, 2.0% each of Coriolus versicolor and Ganoderma lucidum, 0.3% each of bean leaf, pumpkin seed, apricot, garlic, peanut, persimmon, radish, burdock, lotus root, taro, parsley, and chestnut, 1.0% of old pumpkin, and 0.3% each of radish tops, aster scaber thunb, shepherds purse, green onion, laver, potato, sweet potato and pine nut.

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN-

ACCESSION NUMBER: 2004:869406 CAPLUS

DOCUMENT NUMBER: 142:154620

TITLE: Manufacturing method of new functional salt and

development of use thereof

INVENTOR(S): Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

APPLICATION NO. PATENT NO. KIND DATE \_\_\_\_\_\_ ----\_\_\_\_\_ KR 2000-60499 20001006 20010105 KR 2001000706 Α KR 2000-60499 PRIORITY APPLN. INFO.: A manufacturing method of new functional salt and development of use thereof are provided, which has effects of decreasing blood pressure and antibiosis, by stirring salt and  $\alpha$ - chitosan after dissolving salt to be 20-23% of the saturated solution New functional salt contains 0.1-5% of chitosan dissolved in a salt solution and chitosan is dried and crystallized  $\alpha$ - chitosan is obtained from shells of crab and shrimp and  $\beta$ - chitosan is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a chloride ion of salt. The content of the chitosan is 0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a chitosan salt solution For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt, solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan.

L4 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:726046 CAPLUS

DOCUMENT NUMBER: 142:62449

TITLE: Characterization of chitosan acetate as a binder for

sustained release tablets

AUTHOR(S): Nunthanid, J.; Laungtana-anan, M.; Sriamornsak, P.;

Limmatvapirat, S.; Puttipipatkhachorn, S.; Lim, L. Y.;

Khor, E.

CORPORATE SOURCE:

Department of Pharmaceutical Technology, Faculty of Pharmacy, Silpakorn University, Nakhon Pathom, 73000,

Thailand

SOURCE:

Journal of Controlled Release (2004), 99(1), 15-26

CODEN: JCREEC; ISSN: 0168-3659

PUBLISHER:

Elsevier B.V.

Journal

DOCUMENT TYPE: English LANGUAGE:

A chitosan derivative as an acetate salt was successfully prepared by a spray drying technique. Physicochem. characteristics and micrometric properties of spraydried chitosan acetate (SD-CSA) were studied as well as drug-polymer and excipient-polymer interaction. SD-CSA was spherical agglomerates with rough surface and less than 75  $\mu m$  in diameter The salt was an amorphous solid with slight to moderate hygroscopicity. The results of Fourier transform IR (FTIR) and solid-state 13C NMR spectroscopy demonstrated the functional groups of an acetate salt in its mol. structure. DSC and TGA thermograms of SD-CSA as well as FTIR and NMR spectrum of the salt, heated at 120°C for 12 h, revealed the evidence of the conversion of chitosan acetate mol. structure to N-acetylglucosamine at higher temperature No interaction of SD-CSA with either drugs (salicylic acid and theophylline) or selected pharmaceutical excipients were observed in the study using DSC method. As a wet granulation binder, SD-CSA gave theophylline granules with good flowability (according to the value of angle of repose, Carr's index, and Hausner ratio) and an excellent compressibility profile comparable to a pharmaceutical binder, PVP K30. In vitro release study of theophylline from the tablets containing 3% weight/weight

SD-CSA as a binder demonstrated sustained drug release in all media. Cumulative drug released in 0.1 N HCl, pH 6.8 phosphate buffer and distilled water was nearly 100% within 6, 16 and 24 h, resp. It was suggested that the simple incorporation of spray-dried chitosan acetate as a tablet binder could give rise to controlled drug delivery systems exhibiting sustained drug release.

REFERENCE COUNT:

THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

46

ACCESSION NUMBER:

2004:174461 CAPLUS

DOCUMENT NUMBER:

141:179341

TITLE:

Microencapsulation of hydrophilic drug substances using biodegradable polyesters. Part II: Implants allowing controlled drug release - a feasibility study

using bisphosphonates

AUTHOR (S):

Weidenauer, U.; Bodmer, D.; Kissel, T.

CORPORATE SOURCE:

Dep. Pharmaceutics and Biopharm., Philipps-Univ.,

Marburg, D-35032, Germany

SOURCE:

Journal of Microencapsulation (2004), 21(2), 137-149

CODEN: JOMIEF; ISSN: 0265-2048

PUBLISHER:

Taylor & Francis Ltd.

DOCUMENT TYPE:

Journal

English LANGUAGE: AΒ

The prolonged delivery of hydrophilic drug salts from hydrophobic polymer carriers at high drug loading is an ambitious goal. Pamidronate disodium salt (APD) containing implants prepared from spray-dried microparticles were investigated using a laboratory ram extruder. An APD-containing polymer matrix consisting of an

APD-

chitosan implant embedded in the biodegradable polymer D,L-poly(lactide-co-glycolide acid-glucose) (PLG-GLU) was compared with a matrix system with the micronized drug distributed in the PLG-GLU.

APD-chitosan matrix system showed a triphasic release behavior at loading levels of 6.86 and 15.54% (weight/weight) over 36 days under in-vitro

conditions. At higher loading (31.92%), a drug burst was observed within 6 days due to the formation of pores and channels in the polymeric matrix. In contrast, implants containing the micronized drug showed a more continuous release profile over 48 days up to a loading of 31.78% (weight/weight). At a drug loading of 46.17% (weight/weight), a drug burst was observed Using micronized

drug salts and reducing the surface area available for

diffusion, parenteral delivery systems for highly water-soluble

drug candidates were shown to be tech. feasible at high drug loadings.

THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS 25 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:635078 CAPLUS

DOCUMENT NUMBER:

115:235078

TITLE:

Nonwood fiber-based paper with good printability

INVENTOR (S):

Kanayama, Nozomi; Endo, Akitaro PATENT ASSIGNEE(S): Kanayama, Nozomi; Endo, ARICA

PATENT ASSIGNEE(S): Daifuku Seishi K. K., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE DATE APPLICATION NO. \_\_\_\_\_ ----\_\_\_\_\_ A 19910719 JP 1989-308119 19891127 JP 1989-308119 19891127 JP 03167388 PRIORITY APPLN. INFO.: The title paper is made from pulps containing bast and/or leaf fibers and water-insol. fibrous CM-cellulose and salts and is coated with chitosan at least on its printing surface. Thus, handsheets (basis weight 40 g/m2) of 90:10 manila hemp fibers and CM-cellulose (degree of substitution 0.33) were sprayed with a .apprx.2% solution of 1:1 chitosan-glycolic acid (dry pickup 0.5%), and dried at 120° on a mirror drum. The sheets had better strength and printability than without CM-cellulose or chitosan.

ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:75976 CAPLUS

DOCUMENT NUMBER:

110:75976

TITLE:

SOURCE:

Water-soluble chitosan

INVENTOR(S):

Kushino, Shigetaka; Asano, Hiroshi PATENT ASSIGNEE(S): Nitta Gelatine Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. PATENT NO. -----\_\_\_\_\_\_ ---------A 19880920 JP 1987-59229 19870313 JP 1987-59229 19870313 JP 63225602 JP 1987-59229 PRIORITY APPLN. INFO.:

Water-soluble chitosan (I), useful as protein coagulant for medicines and foods, and hair prepns. (no data), was prepared by dehydrating aqueous solns. of salts of I (obtained by reaction of I and acids), then pulverized. Thus, 20 g powdered I was dispersed in 940 mL water, treated with 40 mL 50% aqueous lactic acid to give 2% aqueous solution of I salt, which was evaporated under reduced pressure to 10% concentration, then spray-dried with air at 175° to give water-soluble powdered I. When the powder 15.0 g was added to 100 mL water, it dissolved immediately to give a solution with high concentration

ANSWER 8 OF 9

MEDLINE on STN

ACCESSION NUMBER:

2004437121 MEDLINE

DOCUMENT NUMBER:

PubMed ID: 15342177

TITLE:

Characterization of chitosan acetate as a binder for

sustained release tablets.

**AUTHOR:** 

Nunthanid J; Laungtana-Anan M; Sriamornsak P; Limmatvapirat

S; Puttipipatkhachorn S; Lim L Y; Khor E

CORPORATE SOURCE:

Department of Pharmaceutical Technology, Faculty of Pharmacy, Silpakorn University, Nakhon Pathom 73000,

Thailand.. jurairat@email.pharm.su.ac.th

SOURCE:

Journal of controlled release : official journal of the Controlled Release Society, (2004 Sep 14) Vol. 99, No. 1,

pp. 15-26.

Journal code: 8607908. ISSN: 0168-3659.

PUB. COUNTRY:

Netherlands

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200503

ENTRY DATE:

Entered STN: 3 Sep 2004

Last Updated on STN: 5 Mar 2005 Entered Medline: 4 Mar 2005

A chitosan derivative as an acetate salt was AB

successfully prepared by using a spray drying technique.

Physicochemical characteristics and micromeritic properties of

spray-dried chitosan acetate (SD-CSA) were

studied as well as drug-polymer and excipient-polymer interaction. was spherical agglomerates with rough surface and less than 75 microm in diameter. The salt was an amorphous solid with slight to

moderate hygroscopicity. The results of Fourier transform infrared (FTIR) and solid-state (13)C NMR spectroscopy demonstrated the functional groups

of an acetate salt in its molecular structure. DSC and TGA thermograms of SD-CSA as well as FTIR and NMR spectrum of the salt

, heated at 120 degrees C for 12 h, revealed the evidence of the conversion of chitosan acetate molecular structure to N-acetylglucosamine at higher temperature. No interaction of SD-CSA with either drugs (salicylic acid and theophylline) or selected pharmaceutical excipients were observed in the study using DSC method. As a wet granulation binder, SD-CSA gave theophylline granules with good flowability (according to the value of angle of repose, Carr's index, and Hausner ratio) and an excellent compressibility profile comparable to a pharmaceutical binder, PVP K30. In vitro release study of theophylline from the tablets containing 3% w/w SD-CSA as a binder demonstrated sustained drug release in all media. Cumulative drug released in 0.1 N

HCl, pH 6.8 phosphate buffer and distilled water was nearly 100% within 6, 16 and 24 h, respectively. It was suggested that the simple incorporation of spray-dried chitosan

acetate as a tablet binder could give rise to controlled drug delivery systems exhibiting sustained drug release.

ANSWER 9 OF 9

MEDLINE on STN

ACCESSION NUMBER: DOCUMENT NUMBER:

MEDLINE 2004297256 PubMed ID: 15198426

TITLE:

Microencapsulation of hydrophilic drug substances using biodegradable polyesters. Part II: Implants allowing

controlled drug release -- a feasibility study using

bisphosphonates.

**AUTHOR:** 

Weidenauer U; Bodmer D; Kissel T

Department of Pharmaceutics and Biopharmacy, CORPORATE SOURCE:

Philipps-University, D-35032 Marburg, Germany.

SOURCE:

Journal of microencapsulation, (2004 Mar) Vol. 21, No. 2,

pp. 137-49.

Journal code: 8500513. ISSN: 0265-2048.

PUB. COUNTRY:

England: United Kingdom

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT: ENTRY MONTH:

Priority Journals 200409

ENTRY DATE:

Entered STN: 17 Jun 2004

Last Updated on STN: 15 Sep 2004 Entered Medline: 14 Sep 2004

The prolonged delivery of hydrophilic drug salts from AB hydrophobic polymer carriers at high drug loading is an ambitious goal. Pamidronate disodium salt (APD) containing implants prepared from spray-dried microparticles were investigated using a laboratory ram extruder. An APD-containing polymer matrix consisting of an APD-chitosan implant embedded in the biodegradable polymer D,L-poly(lactide-co-glycolide acid-glucose) (PLG-GLU) was compared with a matrix system with the micronized drug distributed in the PLG-GLU. The APD-chitosan matrix system showed a triphasic release behaviour at loading levels of 6.86 and 15.54% (w/w) over 36 days under in-vitro conditions. At higher loading (31.92%), a drug burst was observed within 6 days due to the formation of pores and channels in the polymeric matrix. In contrast, implants containing the micronized drug showed a more continuous release profile over 48 days up to a loading of 31.78% (w/w). At a drug loading of 46.17% (w/w), a drug burst was observed. Using micronized drug salts and reducing the surface area available for diffusion, parenteral delivery systems for highly water-soluble drug candidates were shown to be technically feasible at high drug loadings.

ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:1015840 CAPLUS

DOCUMENT NUMBER:

141:428027

TITLE:

Method for producing a chitosan-bound salt with

antihypertensive activity

INVENTOR(S):

Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park,

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA.	PATENT NO.			KIND DATE			4	APPLICATION NO.					DATE					
WO	WO 2004100681			A1	-	2004	1125	1						20040227				
	W:	AE.	AG.	AL.	AM.	AT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,	
	•••	CN.	CO.	CR.	CU.	CZ.	DE,	DK.	DM·,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE.	GH.	GM.	HR.	HU.	ID,	IL.	IN,	IS,	JP,	KE,	KG,	KP,	KZ,	LC,	LK,	
		LR.	T.S.	TIT.	LU.	LV.	MA,	MD.	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	NO,	
		NZ	OM	PG.	PH.	PL.	PT,	RO.	RU.	sc.	SD.	SE,	SG,	SK,	SL,	SY,	ТJ,	
		TM	T'N	TR.	ΤТ.	TZ.	ŪΑ,	UG.	US.	UZ.	VC,	VN,	YU,	ZA,	ZM,	ZW		
	pw.	RW	GH,	GM.	KE.	LS.	MW,	MZ.	SD.	SL.	sz.	TZ,	ŪĠ,	ZM,	ZW,	AM,	AZ,	
	KW.	BV,	KG,	K7.	MD.	RII	TJ,	TM.	AT.	BE.	BG.	CH.	CY.	cz.	DE,	DK,	EE,	
		EC,	RC,	FD	GB	GP	HU,	TE.	TT.	LU.	MC.	NL.	PT.	RO,	SE,	SI,	SK,	
		TTD	DE,	B.T	CF,	CG,	CT.	CM.	GA.	GN.	GO.	GW.	ML.	MR.	NE,	SN,	TD,	TG
מע	2004	1K,	97 97	БО,	Δ,	20041202			KR 2003-31616			MR, NE, SN, TD, TG 20030519						
ED.	1631	155	0,		Δ Δ1		2001	0308		EP 2	004-	7155	73		2	0040	227	
EP					GB,		2000	0500										
TD	2006	DB,	ES,	FR,	σb,	11	2006	0810		TP 2	005-	5184	55	•	2	0040	227	
JP	2006	2127 212T	90		7.1		2005	1020		ווכ סי	003	5184	19		2	0041	217	
					- AI		2005	1020					6		20041217 A 20030519			
PRIORITY	APP	LIN .	INFO	. :								-	0	-	W 2			
						_				–					77 - Z.			

The present invention relates to a method for producing a chitosan AB -bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystq. step. 5

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN 2004:1015840 CAPLUS ACCESSION NUMBER: 141:428027 DOCUMENT NUMBER: Method for producing a chitosan-bound salt with TITLE: antihypertensive activity Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park, INVENTOR(S): Hyun Jin; Kim, In Cheol S. Korea PATENT ASSIGNEE(S): PCT Int. Appl., 22 pp. SOURCE: CODEN: PIXXD2 Patent DOCUMENT TYPE: English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: APPLICATION NO. DATE PATENT NO. KIND DATE \_\_\_\_\_\_ -----\_ \_ \_ \_ WO 2004-KR410 20040227 20041125 A1 WO 2004100681 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, 20030519 KR 2003-31616 KR 2004099587 Α 20041202 EP 2004-715573 20040227 20060308 EP 1631155 A1 R: DE, ES, FR, GB, IT 20040227 JP 2005-518455 JP 2006518190 Т 20060810 20041217 US 2005232999 US 2004-518419 A1 20051020 A 20030519 KR 2003-31616 PRIORITY APPLN. INFO.: W 20040227 WO 2004-KR410 The present invention relates to a method for producing a chitosan AB -bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step. THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS 5 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN 2004:869406 CAPLUS ACCESSION NUMBER: 142:154620 DOCUMENT NUMBER: Manufacturing method of new functional salt and TITLE: development of use thereof Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In INVENTOR(S): Cheol; Park, Hyeon Jin

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S. Korea
PATENT ASSIGNEE(S):
                          Repub. Korean Kongkae Taeho Kongbo, No pp. given
SOURCE:
                          CODEN: KRXXA7
                          Patent
DOCUMENT TYPE:
LANGUAGE:
                          Korean
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
```

PATENT NO. KIND DATE APPLICATION NO. DATE

KR 2001000706 A 20010105 KR 2000-60499 20001006

PRIORITY APPLN. INFO.: KR 2000-60499 20001006

A manufacturing method of new functional salt and development of use thereof are provided, which has effects of decreasing blood pressure and antibiosis, by stirring salt and  $\alpha$ chitosan after dissolving salt to be 20-23% of the saturated solution New functional salt contains 0.1-5% of chitosan dissolved in a salt solution and chitosan is dried and crystallized  $\alpha\text{-}$  chitosan is obtained from shells of crab and shrimp and  $\beta\text{-}$  chitosan is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a chloride ion of salt. The content of the chitosan is 0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a chitosan salt solution For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt solution is spray-dried .... or concentration-dried to recrystd. the salt having the

ANSWER 1 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:807957 CAPLUS

DOCUMENT NUMBER:

145:248015

TITLE:

Production of functional salt by heating roasted sea salt powder and chitosan to coat effective ingredient of chitosan to surface of sea salt whereby reducing salinity of sea salt and producing functional salt

having efficacy of chitosan

INVENTOR (S):

Bae, Jo Jung

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
KR 2004102921 PRIORITY APPLN. INFO.:	Α	20041208	KR 2003-34762 KR 2003-34762	20030530 20030530	
			Note that the second second second		

P A method of making functional salt by heating roasted sea ΔŔ salt powder and chitosan to coat the effective ingredient of the chitosan to the surface of sea salt is provided. The product is reduced in the salinity of sea salt and has the efficacy of chitosan as well as immunostimulating action, anticancer action, antibacterial action, blood pressure lowering action or the like. Sea salt is roasted at 400 to 1,200 °C in a charcoal kiln and ground to 10 to 30meshes, 100% by weight of the ground sea salt is mixed with 3 to 10% by weight of chitosan and roasted at 200 °C in a stainless steel vessel and then packed. The chitosan is selected from water-soluble chitosan or chitosan oligosaccharide.

ANSWER 2 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:648539 CAPLUS

DOCUMENT NUMBER:

145:82354

TITLE:

Manufacturing method of health seasoning salt including green tea and chitooligosaccharide and

health seasoning salt manufactured thereby

INVENTOR(S):

Jung, Man Jong

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean 1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE					
	KR 2004001369	Α	20040107	KR 2002-36535	20020627					
PRTO	RITY APPLN. INFO.:			KR 2002-36535	20020627					
AB	Provided are a manu	facturi	ng method of	health seasoning salt	including					
	green tea and chito	oligosa	ccharide and	l health seasoning salt						
manufactured thereby. The green tea has anticancer activity and antibacterial										
	activity, lowers blood cholesterol level, and inhibits the increase of									
	blood pressure and	decreas	e of blood o	lucose level. The						
	chitosan increase i	mmunity	. has antiba	cterial and anticancer						
	activity decreases	blood	glucose leve	el, regulates blood cho	lesterol					
	lovel and prevents	cardio	vascular dis	seases. The manufactur	ing method of					
		cardio	vascular ars	cases. The managed-						
heal	th			•						

seasoning salt including green tea and chitooligosaccharide comprises the steps of: dissolving 0.1-10% of green tea powder and 0.1-10% of chitooligosaccharide in 100 parts by weight of water; adding salt thereto, followed by stirring for 40-60 min; and naturally drying the mixture in the shade for 12-24 h.

ANSWER 3 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:1138831 CAPLUS

DOCUMENT NUMBER:

144:5825

TITLE:

Fermented soybean paste containing

chitooligosaccharide

INVENTOR(S):

Lee, Won Hui

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

APPLICATION NO.

DATE

CODEN: KRXXA7

KIND DATE

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KR 2002046272	Α	20020620	KR 2002-31047		20020603
PRIORITY APPLN. INFO.:			KR 2002-24561		
AB A fermented soybean	paste	is prepared	by using chitoolig	gosacc	haride instead
of directly using c	hitin .	or chitosan	during the product:	ion of	
fermented soybean p	aste o	r soy sauce.	The product has	an imp	roved taste
and preservability	and va	rious physio	l. actions such as	antic	ancer
activity, an antiba	cteria	l action, ch	olesterol-lowering	activ	ity,
blood pressure-lowe	ring a	ctivity, etc	. A mixture of		

16-17% by weight fermented soybean, 1-5% by weight chitooligosaccharide, and 17-19% by weight salt, plus water (to 100% by weight) is fermented at ambient temperature for 45-60 days to produce a fermented soybean paste. filtrate is heated to produce soy sauce.

ANSWER 4 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:1015840 CAPLUS

DOCUMENT NUMBER:

141:428027

TITLE:

Method for producing a chitosan-bound salt with

antihypertensive activity

INVENTOR(S):

Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park,

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			KIN	<b>D</b> :	DATE		APPLICATION NO.				DATE						
	- <b></b>				_												
WO 2004100681			A1	A1 20041125			WO 2004-KR410					20040227					
W:		AG,															
	CN.	co,	CR.	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
	GE.	GH,	GM.	HR.	HU.	ID.	IL.	IN,	IS,	JP,	KE,	KG,	ΚP,	ΚZ,	LC,	LK,	
		LS,															
	NZ.	OM,	PG.	PH.	PL.	PT.	RO.	RU,	sc,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	
	TM.	TN,	TR.	TT.	TZ.	UA.	UG.	us.	UZ.	VC.	VN,	YU,	ZA,	ZM,	ZW		
ВM	: BW,	GH.	GM.	KE.	LS.	MW.	MZ.	SD.	SL.	SZ.	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	
200	BY	KG,	K2.	MD.	RII.	T.T.	TM.	AT.	BE.	BG.	CH.	CY,	CZ.	DE,	DK,	EE,	
	ES,	FI,	FR	GB	GR.	HU.	TE.	TT.	LU.	MC.	NL.	PT.	RO.	SE,	SI,	SK,	
	TD,	BF.	B.T	CF	CG,	CT,	CM.	GA.	GN.	GO.	GW.	ML.	MR.	NE.	SN,	TD,	TG
TR, BF, BJ, KR 2004099587														2	0030	519	

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20040227
                               20060308
                                          EP 2004-715573
                         A1
        R: DE, ES, FR, GB, IT
                                                                 20040227
                                           JP 2005-518455
    JP 2006518190
                         T
                               20060810
                                                                 20041217
                                           US 2004-518419
    US 2005232999
                         A1
                               20051020
                                                              A 20030519
                                           KR 2003-31616
PRIORITY APPLN. INFO.:
                                                              W 20040227
                                           WO 2004-KR410
```

The present invention relates to a method for producing a chitosan ΔR -bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN-

ACCESSION NUMBER:

2004:885242 CAPLUS

DOCUMENT NUMBER:

142:133516

TITLE:

Functional noodles

INVENTOR(S):

Kim, Sook Hee; Woo, Ki Min

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	KR 2001007980	A	20010205	KR 2000-64506	20001101
PRIO	ORITY APPLN. INFO.:			KR 2000-64506	20001101
AB	Functional noodles prevent high blood hematoma by adding chitosan, or oligos noodle, modified coextruded noodle. I derivs. from chitis of 0.0001 weight% Chitosan noodles had 0.1-2 weight% of sagums, 0.001-0.01 we 0.01-0.05 weight% of The functional noodles	pressur chitin, sacchari coked no Function and chical sacchari chical saccharity of polypdiles are codle, mo	ce and high of chitosan, of chitosan, of chitosan or of chitosan o	tend an expiration date cholesterol derivs. from chitin and edients for manufacturi codle, instant fried no contain chitin, chitosaligosaccharides in a raring to total weight of flour, 6-13 weight% of the of alkalis, 0.02-0.1 matters, 0.5-1.8 weight and 20-25 weight% of g noodle, wet noodle, ed noodle, dried noodle	ng wet odle and n, nge noodles. starch, 2 weight% of % of emulsifier, water. buckwheat
	HOUGIES TIKE pasta	, reeu v	CIMICCIAI GI		

ANSWER 6 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:869406 CAPLUS

DOCUMENT NUMBER:

142:154620

TITLE:

Manufacturing method of new functional salt and

development of use thereof

INVENTOR (S):

Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

APPLICATION NO. DATE PATENT NO. KIND DATE \_\_\_\_\_\_ ----KR 2000-60499 20001006 KR 2001000706 20010105 Α KR 2000-60499 20001006 PRIORITY APPLN. INFO.: A manufacturing method of new functional salt and development of use thereof are provided, which has effects of decreasing blood pressure and antibiosis, by stirring salt and  $\alpha$ chitosan after dissolving salt to be 20-23% of the saturated solution New functional salt contains 0.1-5% of chitosan dissolved in a salt solution and chitosan is dried and crystallized  $\alpha$ - chitosan is obtained from shells of crab and shrimp and  $\beta$ - chitosan is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a chloride ion of salt. The content of the chitosan is 0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a chitosan salt solution For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan

L7 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:833007 CAPLUS

DOCUMENT NUMBER: 135:370991

TITLE: Compositions containing peptide and electrolyte

excretion promoter and foods containing the same

INVENTOR(S): Takahashi, Ryuji; Yomoda, Satoshi

PATENT ASSIGNEE(S): Kanebo, Limited, Japan SOURCE: PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.			KIND DATE		AP	APPLICATION NO.				DATE								
							-		<b>-</b> -							-		
	WO	2001	0849	48		A1		2001	1115	WO	20	001-	JP38	27		2	20010	508
						KR,												
		RW:	AT,	ΒE,	CH,	CY,	DE,	, DK,	ES,	FI, F	R,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,
			PT,	SE,	TR													
	ΕP	1281				A1				EP							20010	
		R:	ΑT,	BE,	CH,	DE,	DK	, ES,	FR,	GB, G	R,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	FI,	CY,	TR												
	AU	7827	27			B2		2005	0825	AU	20	001-	5268	9			20010	
	US	2003	1441	79		A1		2003	0731	US	20	002-	2584	20			0021	
PRIO	RITY	APP	LN.	INFO	. :					JP	20	-000	1383	73			0000	
													JP38:				20010	
								/> -		1	74			+ion	220	mote	r(e)	

Compns. containing peptide(s) and electrolyte excretion promoter(s) characterized by comprising a peptide or a peptide mixture, which is obtained by digesting casein with a protease such as trypsin and has angiotensin converting enzyme-inhibiting activity, and ≥1 electrolyte excretion promoters selected from chitosan, alginic acid, and salts thereof. Owing to the synergistic effects of the components, these compns. exert an excellent effect of inhibiting increase in blood pressure, and does not have

bitterness taste and pungency associated with the peptides.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

L7 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:480808 CAPLUS

DOCUMENT NUMBER: 135:106702

TITLE: Effects of chloride on stroke incidence and blood

pressure in salt-sensitive hypertensive rats

AUTHOR(S): Katoh, Seiji

CORPORATE SOURCE: Second Dep. Med. Biochem., Sch. Med., Ehime Univ.,

Shigenobu-cho, Onsen-gun, Ehime, 791-0295, Japan

SOURCE: Nippon Eiyo, Shokuryo Gakkaishi (2001), 54(3), 147-153

CODEN: NESGDC; ISSN: 0287-3516

PUBLISHER: Nippon Eiyo, Shokuryo Gakkai

DOCUMENT TYPE: Journal LANGUAGE: Japanese

AB The effects of chloride on stroke incidence and blood pressure were examined in salt-sensitive hypertensive

rats. Stroke-prone spontaneously hypertensive rats (SHRSP) and Dahl salt-sensitive (DahlS) rats were fed on a 3% NaCl diet with or without 5% chitosan or 5% alginate, which have potent inhibitory

effects on intestinal absorption of chloride and sodium, resp. In SHRSP,

the chitosan diet prevented stroke efficiently, whereas the

alginate diet had no significant preventive effect. In DahlS rats,

although the chitosan diet attenuated salt-accelerated hypertension, the alginate diet had no effect on blood pressure. In DahlS rats, 1 h of feeding on the high-salt

diet increased the serum chloride concentration and stimulated the activity of

angiotensin converting enzyme (ACE), whereas no changes were seen in the

group given the high-salt diet with chitosan. These results suggest that chloride induces stroke and hypertension in salt-sensitive hypertensive rats, concomitant with stimulation of

serum ACE activity.

L7 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:731496 CAPLUS

DOCUMENT NUMBER: 133:313629

TITLE: Chitosan soft capsules and their manufacture INVENTOR(S): Sato, Toshio; Mizushima, Hiroshi; Kosaka, Yasuo

PATENT ASSIGNEE(S): LTT Inst. Co., Ltd., Japan; V-Tech Corp.

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000290187	A	20001017	JP 1999-98146	19990405
US 6190694	B1	20010220	US 1999-416183	19991011
CA 2291286	<b>A1</b>	20001005	CA 2000-2291286	19991129
PRIORITY APPLN. INFO.:			JP 1999-98146 A	
AB The invention relat	es to a	a process for	making soft capsules	containing
and the second of the second of	2 2 :	iamehamain	the process includes	

AB The invention relates to a process for making soft capsules containing chitosan as a main ingredient, wherein the process includes powdering chitosan, mixing the chitosan powder with organic acid, organic acid salt, oil, and emulsifier to obtain a gel suspension, and encapsulating the gel suspension. Soft capsules were formulated from squid chitosan 207, glutamic acid 103.5, sodium glutamate 207, soybean oil, monoglyceride 155.25, beeswax 155.25 g, and tested for their solubility in artificial intestinal juice and blood pressure-lowering effect in hypertensive patients.

L7 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 1995:514800 CAPLUS

DOCUMENT NUMBER:

122:255896

Antihypertensive effect of chitosan in rats and humans Kato, Hideo; Taguchi, Tomoko; Okuda, Hiromichi; Kondo, AUTHOR (S):

Mari; Takara, Minoru

Department of Food and Nutrition, Hiroshima Women's CORPORATE SOURCE:

College, Onsen, 791-02, Japan

Wakan Iyakugaku Zasshi (1994), 11(3), 198-205 SOURCE:

CODEN: WIZAEL; ISSN: 1340-6302

PUBLISHER:

Wakan Iyaku Gakkai

DOCUMENT TYPE:

Journal

English LANGUAGE:

The effect of dietary fibers on the hypertensive action of NaCl was examined AB by administration of a high salt diet containing alginic acid, which readily absorbs cations, or chitosan, which readily absorbs anions, to normotensive rats and SHRSP for 40 days. Addition of alginic acid to the high salt diet increased the amount of sodium and the addition of chitosan increased the amount of chloride in the feces of normotensive rats. Addition of chitosan to the high salt diet resulted in a significantly lower systolic blood Serum ACE was pressure than addition of alginic acid in both groups. significantly reduced in SHRSP fed with the high-salt diet containing chitosan. Serum chloride ion was lower in the normotensive rats fed with the high salt diet containing chitosan than alginic acid. In humans, the high salt diet increased the systolic blood pressure and serum ACE activity and chloride concentration after 1 h. and oral administration of chitosan inhibited these increases. It also reduced the serum bicarbonate level after 1 h, but did not affect the sodium concentration Serum ACE in humans was found to be stimulated by chlorideion. These results suggest that chitosan prevents increase in the systolic blood pressure of humans induced by high salt intake by inhibiting intestinal absorption of chloride, an activator of ACE. Based on these results, the relationship between serum ACE and chloride concentration was discussed.

ANSWER 11 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

1994:400906 CAPLUS ACCESSION NUMBER:

121:906 DOCUMENT NUMBER:

chitosan as antihypertensive TITLE: Kato, Hideo; Okuda, Hiromichi INVENTOR(S):

Suisancho Chokan, Japan PATENT ASSIGNEE(S):

Jpn. Kokai Tokkyo Koho, 15 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06056674	Α	19940301	JP 1992-258422	19920928
JP 2507907	B2	19960619		
			1000 1100CO N	1 100000000

JP 1992-147759 A1 19920608 PRIORITY APPLN. INFO.:

Chitosan alone or added to feed or food promoted the chlorine excretion in feces and lowered the blood pressure in spontaneous hypertensive rats and male subjects given a high-salt diet.

L11 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

2001:627293 CAPLUS ACCESSION NUMBER:

135:168161 DOCUMENT NUMBER:

Chitosan succinate sodium salt production method TITLE:

Komarov, B. A.; Albulov, A. I.; Belov, M. Yu.; INVENTOR (S):

Samuylenko, A. Ya.; Fomenko, A. S.; Shinkarev, S. M.;

Trunov, A. M.

Vserossiiskii Nauchno-Issledovatel'skii i PATENT ASSIGNEE(S):

Tekhnologicheskii Institut Biologicheskoi

Promyshlennosti, Russia

Russ., No pp. given SOURCE:

CODEN: RUXXE7

DOCUMENT TYPE:

Patent Russian

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

DATE APPLICATION NO. DATE KIND PATENT NO. \_\_\_\_\_ \_\_\_\_\_\_ ----\_\_\_\_\_ RU 1998-106316 19980407 C1 20000110 RU 2144040 PRIORITY APPLN. INFO.: RU 1998-106316 19980407

Succinyl chitosan sodium salt is prepared by (1) preparing homogeneous chitosan solution, (2) separating chitosan by adding NaOH, (3) reacting the obtained chitosan suspension with succinic anhydride, (4) neutralizing the reaction mixture, and (5) separating

the

reaction product by drying. The method is characterized by the alkali treatment of chitosan until average pH reaches 6.9-7.5, chitosan is subsequently amorphized by exposing its aqueous suspension to cavitation or shearing, succinic anhydride is used in the form of powder with particle size no larger than 100 mcm, neutralization is carried out with alkali solution, and final product is isolated by spray or sublimation drying. This method is simple and does not involve environmentally unfriendly organic solvents.

L11 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

2001:458758 CAPLUS ACCESSION NUMBER:

135:60476 DOCUMENT NUMBER:

Food additives containing ascorbic acid chitosan TITLE:

complexes, their manufacture, and food containing them

Hashimoto, Kunihiko; Onishi, Nobukazu INVENTOR(S):

Nishikawa Rubber Co., Ltd., Japan PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 4 pp.

SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001169750	A	20010626	JP 1999-376807	19991217
JP 3476130	B2	20031210		
				10001017

JP 1999-376807 19991217 PRIORITY APPLN. INFO.:

Food additives, which control lipid metabolism and stimulate immunity, are manufactured by (1) dissolving chitin-chitosan or chitosan with deacetylation degree ≥75% in 0.1-5% organic acid buffer at

0.05-3%, (2) adjusting the solution at pH 5.0-7.5 upon addition of aqueous alkaline

solns., (3) adding ≥1 compound selected from ascorbic acid, ascorbic acid, 2-O-phosphate, ascorbic acid 2-O-glucoside, and their salts , preferably their dried products, to the solution at 3-6 mol per 1 kg ( dry weight) chitosans, and then (4) pulverizing the solution

by freeze-drying and/or spray-drying at a

lower temperature Foods manufactured by adding the additives to powder or dissolving

them to liqs. are also claimed. Chitosan with deacetylation

degree 85% was dissolved in an aqueous solution of glutamic acid and the

was treated with NaOH solution to adjust pH at 6.0. One of the above ascorbic acids was added to the solution and the mixture was freeze-dried to give powder. Hypocholesteremic effect of the powder was shown in hyperlipemic patients. The powder also increased IgG1 and IgG2 in Japanese black calves and Holstein calves.

L11 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:19335 CAPLUS

DOCUMENT NUMBER: 132:65671

Manufacture of quaternary ammonium salts of chitosan TITLE:

Tanaka, Yoshiaki; Okuno, Hiroshi; Tsutsui, Kiyoko INVENTOR(S):

PATENT ASSIGNEE(S): Lignite Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 8 pp. SOURCE: CODEN: JKXXAF

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. \_\_\_\_\_ \_ \_ \_ \_ A 20000107 JP 1998-169826 19980617 JP 2000001504 JP 1998-169826 19980617 PRIORITY APPLN. INFO.:

The salts are manufactured by quaternizing a chitosan

compound in a solvent using alkyl iodide to partially convert the amino

group of chitosan to trialkylated iodide salts,

deionizing the reaction with ion-exchange resin, exchanging the I ions with Br or Cl ions and spray drying.

L11 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

1998:132794 CAPLUS ACCESSION NUMBER:

128:235074 DOCUMENT NUMBER:

Design of microencapsulated chitosan microspheres for TITLE:

colonic drug delivery

Lorenzo-Lamosa, M. L.; Remunan-Lopez, C.; Vila-Jato, AUTHOR(S):

J. L.; Alonso, M. J.

Faculty of Pharmacy, Department of Pharmaceutical CORPORATE SOURCE:

Technology, University of Santiago de Compostela,

Santiago de Compostela, 15706, Spain

Journal of Controlled Release (1998), 52(1,2), 109-118 SOURCE:

CODEN: JCREEC; ISSN: 0168-3659

Elsevier Science B.V. PUBLISHER:

Journal DOCUMENT TYPE: LANGUAGE: English

Among the different approaches to achieve colon-selective drug delivery, the use of polymers, specifically biodegraded by colonic bacteria, holds great promise. In this work a new system which combines specific biodegradability and pH-dependent release is presented. The system consists of chitosan (CS) microcores entrapped within acrylic microspheres. Sodium diclofenac (SD), used as a model drug, was efficiently entrapped within CS microcores using spraydrying and then microencapsulated into Eudragit L-100 and Eudragit S-100 using an oil-in-oil solvent evaporation method. The size of the CS microcores was small (1.8-2.9  $\mu m$ ) and they were efficiently encapsulated within Eudragit microspheres (size between 152 and 223  $\mu m)$ forming a multireservoir system. Even though CS dissolves very fast in acidic media, at pH 7.4, SD release from CS microcores was delayed, the release rate being adjustable (50 dissolved within 30-120 min) by changing

the CS mol. weight (MW) or the type of CS salt. Furthermore, by coating the CS microcores with Eudragit, perfect pH-dependent release profiles were attained. No release was observed at acidic pHs, however, when reaching the Eudragit pH solubility, a continuous release for a variable time (8-12 h) was achieved. A combined mechanism of release is proposed, which considers the dissoln. of the Eudragit coating, the swelling of the CS microcores and the dissoln. of SD and its further diffusion through the CS gel cores. In addition, IR (IR) spectra revealed that there was an ionic interaction between the amine groups of CS and the carboxyl groups of Eudragit, which provided the system with a new element for controlling the release. In conclusion, this work presents new approaches for the modification of CS as well as a new system with a great potential for colonic drug delivery.

THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

1992:20052 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 116:20052

Whipping cream substitute powders containing chitosan TITLE:

and their manufacture

Ootani, Makoto; Tatsumi, Kyoshi INVENTOR(S):

Snow Brand Milk Products Co., Ltd., Japan PATENT ASSIGNEE(S):

Jpn. Kokai Tokkyo Koho, 3 pp. SOURCE:

CODEN: JKXXAF

Patent DOCUMENT TYPE: Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ \_\_\_\_\_ 19900112 A 19910913 JP 1990-5986 JP 03210147 JP 1990-5986 19900112 PRIORITY APPLN. INFO.:

Whipping cream substitute powders are manufactured by emulsifying oil and aq phases, mixing with chitosan solns., homogenizing, sterilizing, concentrating, and drying. The powders are whipped with H2O and the whipped cream substitutes show good shape retention, mild taste and melt smoothly in the mouth. An oil phase of hydrogenated coconut oil, hydrogenated palm kernel oil, and emulsifiers were mixed with aqueous phase containing acid casein, Ca(OH)2, phosphate salts, sucrose, powdered starch sugar, whey, and guar gum and homogenized with an aqueous solution containing

chitosan and lactic acid, sterilized, and spray-dried to manufacture a powder.

L11 ANSWER 14 OF 19 MEDLINE on STN

MEDLINE ACCESSION NUMBER: 2006142181

PubMed ID: 16314079 DOCUMENT NUMBER:

Preparation and release of salbutamol from chitosan and TITLE:

chitosan co-spray dried compacts and multiparticulates. Corrigan Deirdre O; Healy Anne Marie; Corrigan Owen I

School of Pharmacy and Pharmaceutical Sciences, University CORPORATE SOURCE:

of Dublin, Trinity College, Dublin, Ireland.

European journal of pharmaceutics and biopharmaceutics : SOURCE:

official journal of Arbeitsgemeinschaft fur Pharmazeutische

Verfahrenstechnik e.V, (2006 Apr) Vol. 62, No. 3, pp.

295-305. Electronic Publication: 2005-11-28.

Journal code: 9109778. ISSN: 0939-6411.

PUB. COUNTRY: Netherlands

Journal; Article; (JOURNAL ARTICLE) DOCUMENT TYPE:

LANGUAGE: English

AUTHOR:

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200605

Entered STN: 14 Mar 2006 ENTRY DATE:

Last Updated on STN: 31 May 2006 Entered Medline: 30 May 2006

Chitosan microparticulates were prepared by spray AB drying from aqueous media containing hydrochloric acid or acetic acid. The medium affected the morphology and degree of acetylation of chitosan, the presence of acetic acid resulting in increased acetylation of the polymer during processing. Co-spray drying salbutamol sulphate/chitosan systems with the crosslinking agent formaldehyde had no detectable effect on particle morphology. However, with increasing salbutamol loading particles became less spherical, taking on a collapsed appearance. Spray dried chitosan-salbutamol sulphate microparticulates were X-ray amorphous. Chitosan-salbutamol sulphate composites were compressed into discs to quantify drug release and showed delayed release of salbutamol sulphate. The general power law equation fitted the data better than the t0.5, mono- or bi-exponential models and gave n indices greater than 0.5, i.e. in the range 0.53-0.71. Crosslinking did not dramatically alter the drug release behaviour. Both crosslinked and non-crosslinked composites swelled during release, the former to the greater extent. The release data for crosslinked composites gave slightly higher n values than the corresponding non-crosslinked composites, consistent with the increased swelling of these systems. Release studies were also conducted on the microparticulates. Because of the small particle size and large surface area present, the release of the highly soluble drug salt was extremely rapid (> 90% release in 5 min). Twin impinger analysis indicated good in vitro deposition of the microparticulates and potential for pulmonary delivery.

L11 ANSWER 15 OF 19 MEDLINE on STN 2004039752 MEDITNE ACCESSION NUMBER: PubMed ID: 14738587

DOCUMENT NUMBER:

TITLE:

Chitosan salts as nasal sustained delivery systems for

peptidic drugs.

Cerchiara T; Luppi B; Bigucci F; Zecchi V AUTHOR:

Department of Pharmaceutical Sciences, Via S. Donato 19/2, CORPORATE SOURCE:

40127 Bologna, Italy.

The Journal of pharmacy and pharmacology, (2003 Dec) Vol. SOURCE:

55, No. 12, pp. 1623-7.

Journal code: 0376363. ISSN: 0022-3573.

PUB. COUNTRY: England: United Kingdom

Journal; Article; (JOURNAL ARTICLE) DOCUMENT TYPE:

English LANGUAGE:

Priority Journals FILE SEGMENT:

200403 ENTRY MONTH:

Entered STN: 24 Jan 2004 ENTRY DATE:

> Last Updated on STN: 31 Mar 2004 Entered Medline: 30 Mar 2004

The aim of this study was to describe a sustained drug release system AB based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the physical mixtures at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by chitosan salts and, in particular, chitosan hydrochloride provided the lowest release of vancomycin.

L11 ANSWER 16 OF 19 MEDLINE on STN ACCESSION NUMBER: 2003477091 MEDLINE DOCUMENT NUMBER: PubMed ID: 14553988

TITLE: Alkaline chitosan solutions.

AUTHOR: Muzzarelli Corrado; Tosi Giorgio; Francescangeli Oriano;

Muzzarelli Riccardo A A

CORPORATE SOURCE: Institute of Biochemistry, Faculty of Medicine, Polytechnic

University of Marche, Via Ranieri 67, IT-60100 Ancona,

Italy.

SOURCE: Carbohydrate research, (2003 Oct 10) Vol. 338, No. 21, pp.

2247-55.

Journal code: 0043535. ISSN: 0008-6215.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals.

ENTRY MONTH: 200407

ENTRY DATE: Entered STN: 15 Oct 2003

Last Updated on STN: 29 Jul 2004 Entered Medline: 28 Jul 2004

Rigid and transparent hydrogels were obtained upon pouring AB chitosan salt solutions into saturated ammonium hydrogen carbonate. Incubation at 20 degrees C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO(2)(-)NH(4)(+) a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, molecular sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate and lactate salts. Their hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solutions at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 degrees C). Citrate could cross-link chitosan and impart insolubility to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH(4)HCO(3) treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solutions of mixed chitosan carbamate and alginate were spray-dried at 115

L11 ANSWER 17 OF 19 MEDLINE on STN ACCESSION NUMBER: 2003320948 MEDLINE

prevailing diameter approx 2 micron.

DOCUMENT NUMBER:

PubMed ID: 12851047

TITLE:

Controlled release of vancomycin from freeze-dried

chitosan salts coated with different

degrees C to manufacture chitosan-alginate microspheres having

fatty acids by spray-drying.

AUTHOR:

Cerchiara T; Luppi B; Bigucci F; Petrachi M; Orienti I;

Zecchi V

CORPORATE SOURCE:

University of Bologna, Department of Pharmaceutical Sciences, Via S. Donato 19/2, 40127 Bologna, Italy.

SOURCE:

Journal of microencapsulation, (2003 Jul-Aug) Vol. 20, No.

4, pp. 473-8.

Journal code: 8500513. ISSN: 0265-2048.

PUB. COUNTRY:

England: United Kingdom

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: Er

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200311

ENTRY DATE:

Entered STN: 10 Jul 2003

Last Updated on STN: 18 Dec 2003

Entered Medline: 26 Nov 2003

AB The aim of this study was to describe a controlled drug release system based on chitosan salts for vancomycin hydrochloride

delivery. Chitosan aspartate (CH-Asp), chitosan glutamate (CH-Glu) and chitosan hydrochloride (CH-HCl) were prepared by freeze-drying and coated with stearic, palmitic, myristic and lauric acids by spray-drying technique. Vancomycin hydrochloride was used as a peptidic model drug whose sustained release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the freeze-dried and spray-dried systems at pH 2.0 and 7.4.

L11 ANSWER 18 OF 19 MEDLINE on STN 2002257824 MEDLINE. ACCESSION NUMBER:

DOCUMENT NUMBER:

PubMed ID: 11996810

TITLE:

Influence of different chitosan salts on the release of

sodium diclofenac in colon-specific delivery.

**AUTHOR:** 

Orienti I; Cerchiara T; Luppi B; Bigucci F; Zuccari G;

Zecchi V

CORPORATE SOURCE:

Department of Pharmaceutical Sciences, University of Bologna, Via S. Donato 19/2, 40127, Bologna, Italy..

orienti@biocfarm.unibo.it

SOURCE:

International journal of pharmaceutics, (2002 May 15) Vol.

238, No. 1-2, pp. 51-9.

Journal code: 7804127. ISSN: 0378-5173.

PUB. COUNTRY:

Netherlands

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200206

ENTRY DATE:

Entered STN: 9 May 2002

Last Updated on STN: 28 Jun 2002 Entered Medline: 27 Jun 2002

Chitosan (CH) was dissolved in aqueous solutions containing AB aspartic, glutamic, hydrochloric, lactic and citric acids to obtain different chitosan salts. Chitosan salts were collected from the solutions by spraydrying and the powders obtained were mixed with Sodium Diclofenac (SD), taken as a model anti-inflammatory drug. This study evaluated in vitro the influence of acid type on the release behaviour of SD from the physical mixture during gastrointestinal transit. The physical mixture of the chitosan salts with SD provided slower drug release than the pure drug both in acidic and alkaline pHs. In addition, the interaction with beta-glucosidase at pH 7.0 enhanced the release rate.

Among the CH salts used, glutamic and aspartic salts provided the best control of release.

L11 ANSWER 19 OF 19 MEDLINE on STN ACCESSION NUMBER: 1998350558 MEDLINE

DOCUMENT NUMBER:

PubMed ID: 9685941

TITLE:

Design of microencapsulated chitosan microspheres for

colonic drug delivery.

AUTHOR:

SOURCE:

Lorenzo-Lamosa M L; Remunan-Lopez C; Vila-Jato J L; Alonso

CORPORATE SOURCE:

Department of Pharmaceutical Technology, Faculty of Pharmacy, University of Santiago de Compostela, Spain. Journal of controlled release : official journal of the Controlled Release Society, (1998 Mar 2) Vol. 52, No. 1-2,

pp. 109-18.

Journal code: 8607908. ISSN: 0168-3659.

PUB. COUNTRY:

Netherlands

DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199808

ENTRY DATE: Entered STN: 20 Aug 1998

Last Updated on STN: 20 Aug 1998 Entered Medline: 13 Aug 1998

Among the different approaches to achieve colon-selective drug delivery, AB the use of polymers, specifically biodegraded by colonic bacteria, holds great promise. In this work a new system which combines specific biodegradability and pH-dependent release is presented. The system consists of chitosan (CS) microcores entrapped within acrylic microspheres. Sodium diclofenac (SD), used as a model drug, was efficiently entrapped within CS microcores using spraydrying and then microencapsulated into Eudragit L-100 and Eudragit S-100 using an oil-in-oil solvent evaporation method. The size of the CS microcores was small (1.8-2.9 microns) and they were encapsulated within Eudragit microspheres (size between 152 and 233 microns) forming a multireservoir system. Even though CS dissolves very fast in acidic media, at pH 7.4, SD release from CS microcores was delayed, the release rate being adjustable (50% dissolved within 30-120 min) by changing the CS molecular weight (MW) or the type of CS salt. Furthermore, by coating the CS microcores with Eudragit, perfect pH-dependent release profiles were attained. No release was observed at acidic pHs, however, when reaching the Eudragit pH solubility, a continuous release for a variable time (8-12 h) was achieved. A combined mechanism of release is proposed, which considers the dissolution of the Eudragit coating, the swelling of the CS microcores and the dissolution of SD and its further diffusion through the CS gel cores. In addition, infrared (IR) spectra revealed that there was an ionic interaction between the amine groups of CS and the carboxyl groups of Eudragit, which provided the system with a new element for controlling the release. In conclusion, this work presents new approaches for the modification of CS as well as a new system with a great potential for colonic drug delivery.

L11 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

2006:224292 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 145:195416

Preparation and release of salbutamol from chitosan TITLE:

and chitosan co-spray dried compacts and

multiparticulates

Corrigan, Deirdre O.; Healy, Anne Marie; Corrigan, AUTHOR (S):

School of Pharmacy and Pharmaceutical Sciences, CORPORATE SOURCE:

Trinity College, University of Dublin, Dublin, Ire. European Journal of Pharmaceutics and Biopharmaceutics

(2006), 62(3), 295-305

CODEN: EJPBEL; ISSN: 0939-6411

PUBLISHER:

SOURCE:

Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

Chitosan microparticulates were prepared by spray drying from aqueous media containing hydrochloric acid or acetic acid. The medium affected the morphol. and degree of acetylation of chitosan, the presence of acetic acid resulting in increased acetylation of the polymer during processing. Co-spray drying salbutamol sulfate/chitosan systems with the crosslinking agent formaldehyde had no detectable effect on particle morphol. However, with increasing salbutamol loading particles became less spherical, taking on a collapsed appearance. Spray dried chitosan-salbutamol sulfate microparticulates were X-ray amorphous. Chitosan-salbutamol sulfate composites were compressed into disks to quantify drug release and showed delayed release of salbutamol sulfate. The general power law equation fitted the data better than the t 0.5, mono- or bi-exponential models and gave n indexes greater than 0.5, i.e. in the range 0.53-0.71. Crosslinking did not dramatically alter the drug release behavior. Both crosslinked and non-crosslinked composites swelled during release, the former to the greater extent. The release data for crosslinked composites gave slightly higher n values than the corresponding non-crosslinked composites, consistent with the increased swelling of these systems. Release studies were also conducted on the microparticulates. Because of the small particle size and large surface area present, the release of the highly soluble drug salt was extremely rapid (>90% release in 5 min). Twin impinger anal. indicated good in vitro deposition of the

REFERENCE COUNT:

microparticulates and potential for pulmonary delivery. THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS 38 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:1138507 CAPLUS

TITLE:

Manufacturing method of dried corvina using medical

plant

INVENTOR(S):

Kim, Sung Ho

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2003044157	A	20030609	KR 2001-74805	20011129
PRIORITY APPLN. INFO.:			KR 2001-74805	20011129
AD DUDDOCE, Drowided	ia a mai	nufacturing	method of a dried corvi	na by using

PURPOSE: Provided is a manufacturing method of a dried corvina by using a AB medical plant and sun-dried salt removed from poisonous

substances, thereby increasing human health. CONSTITUTION: A manufacturing method of a dried corvina using a medical plant comprises the steps of: removing poisonous substances from sun-dried salt using reeds, and charcoal or silver; adding Laminaria salt and bamboo salt to the sun-dried salt; dipping medicinal plants in charcoal solution, pyroligneous solution, or reed root solution for 2 hours to remove poisonous substances, followed by washing and dewatering them; pulverizing or extracting the medicinal plants and adding the salt prepared above, Cordyceps militaris powder or chitosan powder thereto; spraying the mixture thereof to a corvina and leaving it for several days; washing the corvina with charcoal solution then drying it.

L11 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:829916 CAPLUS

DOCUMENT NUMBER: 142:448486

TITLE: Structural characteristics and sorption ability of

chitosan microgranules

AUTHOR(S): Adamiec, Janusz; Modrzejewska, Zofia

CORPORATE SOURCE: Wydz. Inz. Procesowej i Ochrony Srodowiska, Politech.

Lodzka, Lodz, 90-924, Pol.

SOURCE: Inzynieria Chemiczna i Procesowa (2004), 25(3/1),

543-548

CODEN: ICPRDT; ISSN: 0208-6425

PUBLISHER: Oficyna Wydawnicza Politechniki Wroclawskiej

DOCUMENT TYPE: Journal LANGUAGE: Polish

AB Microgranules were formed by means of spray drying of two chitosan salts: acetate and ascorbate. To reduce solubility, glutaraldehyde and sodium triphosphate were added to the solution Dry microgranules as a product of different chemical composition had different structural characteristics: shape, size, d., and volume, and area of pores. Sorption ability of these microgranules was investigated by measuring the sorption of benzene and carbon dioxide (in a highly-vacuum sorptive instrument).

L11 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:77658 CAPLUS

DOCUMENT NUMBER: 141:42688

TITLE: Chitosan salts as nasal sustained delivery systems for

peptidic drugs

AUTHOR(S): Cerchiara, T.; Luppi, B.; Bigucci, F.; Zecchi, V.

CORPORATE SOURCE: Department of Pharmaceutical Sciences, Bologna, 40127,

Italy

SOURCE: Journal of Pharmacy and Pharmacology (2003), 55(12),

1623-1627

CODEN: JPPMAB; ISSN: 0022-3573

PUBLISHER: Pharmaceutical Press

DOCUMENT TYPE: Journal LANGUAGE: English

AB The aim of this study was to describe a sustained drug release system based on chitosan salts for vancomycin hydrochloride

delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin

hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts

on the release behavior of vancomycin hydrochloride from the phys. mixts.

at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by chitosan salts and, in particular, chitosan

hydrochloride provided the lowest release of vancomycin.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:795160 CAPLUS

140:43678 DOCUMENT NUMBER:

Alkaline chitosan solutions TITLE:

Muzzarelli, Corrado; Tosi, Giorgio; Francescangeli, AUTHOR (S):

Oriano; Muzzarelli, Riccardo A. A.

Faculty of Medicine, Institute of Biochemistry, CORPORATE SOURCE:

Polytechnic University of Marche, Ancona, IT-60100,

Italy

Carbohydrate Research (2003), 338(21), 2247-2255 SOURCE:

CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER:

Elsevier Ltd.

DOCUMENT TYPE:

Journal English LANGUAGE:

Rigid and transparent hydrogels were obtained upon pouring chitosan salt solns. into saturated ammonium hydrogen carbonate. Incubation at 20 °C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO2-NH4+ a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, mol. sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate, and lactate salts. Their hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solns. at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 °C). Citrate could cross-link chitosan and impart insoly. to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH4HCO3 treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solns. of mixed chitosan carbamate and alginate were spray-dried at 115 °C to manufacture chitosan-alginate

microspheres having prevailing diameter approx 2  $\mu$ .

THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 44 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

2003:566810 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

140:64869

Journal

TITLE:

Controlled release of vancomycin from freeze-dried

chitosan salts coated with different

fatty acids by spray-drying

AUTHOR (S):

Cerchiara, T.; Luppi, B.; Bigucci, F.; Petrachi, M.;

Orienti, I.; Zecchi, V.

CORPORATE SOURCE:

Department of Pharmaceutical Sciences, University of

Bologna, Bologna, 40127, Italy

SOURCE:

Journal of Microencapsulation (2003), 20(4), 473-478

CODEN: JOMIEF; ISSN: 0265-2048

Taylor & Francis Ltd. PUBLISHER:

DOCUMENT TYPE: LANGUAGE:

English The aim of this study was to describe a controlled drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by freeze drying and coated with stearic, palmitic, myristic and lauric acids by spray -drying technique. Vancomycin hydrochloride was used as a peptidic model drug whose sustained release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts

on the release behavior of vancomycin hydrochloride from the freeze-dried and spray-dried systems at pH 2.0 and 7.4.

REFERENCE COUNT:

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS 11 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:343408 CAPLUS

DOCUMENT NUMBER:

136:324481

TITLE:

Manufacture of herb salt from herbs cultured using

chitosan spray

INVENTOR(S):

Omoto, Fujiko

PATENT ASSIGNEE(S):

Apio Club K. K., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 7 pp..

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

JP 2002125616 A 20020508 JP 2	PLICATION NO. D	DATE
01 2002123010		
PRIORITY APPLN. INFO.: JP 2	2000 3201/3	20001027

Herb salt is manufactured by cultivating herbs while spraying AB aqueous chitosan solution to leaves, cropping fruits, leaves, and stems, shade- or sun-drying them, cutting them, and mixing them with NaCl. Spraying rosemary with chitosan solution reduced nitrate concentration and increased Brix.

L11 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:335241 CAPLUS

DOCUMENT NUMBER:

138:175642

TITLE:

Influence of different chitosan salts on the release of sodium diclofenac in colon-specific delivery

AUTHOR (S):

Orienti, I.; Cerchiara, T.; Luppi, B.; Bigucci, F.;

Zuccari, G.; Zecchi, V.

CORPORATE SOURCE:

Department of Pharmaceutical Sciences, University of

Bologna, Bologna, 40127, Italy

SOURCE:

International Journal of Pharmaceutics (2002),

238(1-2), 51-59

CODEN: IJPHDE; ISSN: 0378-5173

Elsevier Science B.V. PUBLISHER: Journal

DOCUMENT TYPE:

English LANGUAGE: Chitosan (CH) was dissolved in aqueous solns. containing aspartic,

glutamic, hydrochloric, lactic and citric acids to obtain different chitosan salts. Chitosan salts were collected from the solns. by spray-drying and the powders obtained were mixed with Sodium Diclofenac (SD), taken as a model anti-inflammatory drug. This study evaluated in vitro the influence of acid type on the release behavior of SD from the phys. mixture during gastrointestinal transit. The phys. mixture of the chitosan salts with SD provided slower drug release than the pure drug both in acidic and alkaline pHs. In addition, the interaction with  $\beta$ -glucosidase at pH 7.0 enhanced the release rate. Among the chitosan

salts used, glutamic and aspartic salts provided the

39

best control of release.

REFERENCE COUNT:

THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L20 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:999284 CAPLUS

DOCUMENT NUMBER:

142:279143

TITLE:

Process for producing salted fish with seaweeds powder, mugwort extract, green tea extract and

chitosan solution

INVENTOR(S):

Kim, Deuk Gi

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2003094199	Α	20031211	KR 2003-83704	20031124
PRIORITY APPLN. INFO.:			KR 2003-83704	20031124
AR A process for produ	cing a	salted fish	with seaweeds powder.	а

A process for producing a salted fish with AB mugwort extract, a green tea extract and a chitosan solution is provided, thereby preventing adult diseases, removing fishy smell, and preserving freshness of the fish for a long time. The process comprises the steps of: washing and removing internal organs of fish; spraying salts on the fish; spraying seaweeds powder on the surface of the fish; maturing the salted and seaweeds powder sprayed fish; and packaging the matured fish under vacuum condition, wherein the seaweeds include tangleweed, brown seaweed and brown algae; the matured fish may be further dipped in mugwort or green tea extract; the matured fish may be further coated with a chitosan solution

L20 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on S'IN

ACCESSION NUMBER:

2004:869406 CAPLUS

DOCUMENT NUMBER:

142:154620

TITLE:

Manufacturing method of new functional salt and

development of use thereof

INVENTOR (S):

Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	KR 2001000706	7	20010105	KB 2000-60499	20001006
PRIO	RITY APPLN. INFO.:	А	20010103	KR 2000-60499	
AB	A manufacturing met	hod of	new function	al salt and devel	opment of use
	thereof are provide antibiosis, by stir	d, Whic	n has effect lt and α- ch	s of decreasing f itosan	100d pressure and
	after dissolving sa	lt to b	e 20-23% of	the saturated sol	ution New
	functional salt con				e o d
	in a salt solution $\alpha$ - chitosan is obta	and cni ined fr	cosan is dri	ed and crystallized crab and shrimp	and
	β- chitosan is obta	ined fr	om squids.	The mol. weight o	of the
•	chitosan is 1,000-1	,000,00	0 MW for pro	per adhesive capa	city with a
	chloride ion of sal 0.05-10%, particula				ved in
	water or an organic	soluti	on and mixed	with salt to mak	e a

chitosan salt solution For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan.

L20 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:658743 CAPLUS

DOCUMENT NUMBER: 137:190771

TITLE: Chitosan-containing solution for prophylactic

treatment of teats of lactating animals

INVENTOR(S): Hellman, Asa; Mathisen, Torbjorn

PATENT ASSIGNEE(S): Swed

SOURCE: U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

was

	rent 1						DATE			APPL	ICAT	ION I	NO.		D	ATE	
US	2002 2439	1199	49		A1 A1		2002	0829			001- 002-:					00102	
	2002															00202	225
WO	2002																
	W:	ΑE,	AG,	AL,	AM,	ΑT	, AU,	ΑZ,	ΒA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE	, DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL	, IN,	IS,	JP,	KE,	KG,	KΡ,	KR,	KZ,	LC,	LK,	LR,
		LS.	LT.	LU.	LV,	MA	, MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL.	PT.	RO.	RU,	SD	, SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	ΤZ,
							, yυ,										
	RW:	GH.	GM.	KE.	LS.	MW	MZ,	SD.	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	AM,	ΑZ,	BY,
	2000	KG.	KZ.	MD.	RU.	ТJ	TM,	AT.	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB,
		GR.	TE.	TT.	LU.	MC	, NL,	PT.	SE.	TR.	BF.	ВJ,	CF,	CG,	CI,	CM,	GA,
							, NE,				•	-	•				
ED	1372			J.,	A1		2004	0102		EP 2	002-	7009	37		2	0020	225
				CH.	DE.	DK	, ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
	•••						RO,										
BR	2002	0075	31	,	A		2004	0309		BR 2	002-	7531			2	0020	225
.TD	2005	50881	35		т		2005	0407		JP 2	002-	5673	18		2	0020	225
PRIORITY					-			,		US 2	001-	7917	39	7	A 2	00102	226
PRIORII	L AFF.	LI	11.1	• •							002-					0020	

AB An aqueous solution for prophylactic treatment of teats of lactating cows comprises as a first component at least partially deacetylated chitosan or its acid addition salt in a concentration of up to about 2% by weight of chitosan. A

pH solution of the solution is adjusted to about 4-6.8 by the addition of a mineral

or organic acid. The first component has a mol. weight such that the viscosity of the solution is < 50 mPas. The aqueous solution further comprises a second component selected from heparin, heparan sulfate, and dextran sulfate, the weight ratio between the first and second components being from about 10:1 to about 10:1. For example, 5.8 g 87% glycerol was added to 95 mL of water and 0.3 mL acetic acid (99.9%) was added to the glycerol solution under stirring until a homogeneous solution was obtained. To the solution prepared

then added 1.0 g chitosan (MW of about 80 kD, deacetylation degree 94% (Primex)) and stirring was maintained until all chitosan has been dissolved. The pH of this solution was about 5.2. The solution showed improved

stability and resulted in a viscosity lying within the preferred range and enabling easy handling in connection with the application to the teats.

L20 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:716545 CAPLUS

DOCUMENT NUMBER:

135:222846

TITLE:

Salt- and drought-resistant agent for plant and its

application

INVENTOR (S):

Zhao, Kefu; Cao, Ziyi; Song, Jie; Zhang, Hui; Zhao,

Yanxiu

PATENT ASSIGNEE(S):

Shandong Normal University, Peop., Rep. China

SOURCE:

Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.

CODEN: CNXXEV

DOCUMENT TYPE:

Patent

LANGUAGE:

Chinese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1290483	A	20010411	CN 1999-112463	19990930
PRIORITY APPLN. INFO.:			CN 1999-112463	19990930
AB The title agent of	contains o	gibberellin	compds. from one or m	ore of GA3, GA7,
GA4 and their K o	or Na salt	s, salicyl:	ic acid derivs. from o	ne or
more of Na salicy	/late, K s	salicylate,	Ca salicylate, Me sal	icylate, Et
salicylate and Pr	salicyla	ate, amino d	oligosaccharide (O-car	boxymethyl
chitosan), and ca	alcium sal	lt from one	or more of CaCl2,	_
Ca(NO3)2, Ca(Ac)2	2, Ca prop	pionate, Ca	butyrate, Ca valerate	, Ca citrate,
etc. Vitamins, a	amino acid	ds, plant gr	rowth regulators, orga	nic acid, mineral
substance, surfac	ctant, pol	lysaccharide	es can be added to the	agent. The
agent is suitable	for the	crops grow	ing in salty soil, and	used
to immerse seeds,	spray se	eedlings or	mix with seeds. The	agent
is drought-resist				

L20 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:7489 CAPLUS

DOCUMENT NUMBER:

134:71036

TITLE:

Method for treating cotyledonous plants with

chitosan salts for improving growth

INVENTOR (S):

Heinsohn, George E.; Bjornson, August S.

PATENT ASSIGNEE(S):

DCV, Inc., USA

SOURCE:

U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 13,945,

abandoned.
CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6167652	B1	20010102	US 1999-237065	19990126
PRIORITY APPLN. INFO.:			US 1997-787870	B2 19970123
			US 1998-13945	B2 19980127

AB Application of a water-soluble salt of chitosan to the foliage of growing plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties enjoy an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5% weight chitosan salt using conventional agricultural equipment and techniques.

REFERENCE COUNT:

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

9

2000:314503 CAPLUS ACCESSION NUMBER:

132:325816 DOCUMENT NUMBER:

Ethanolic cosmetic preparations containing chitosan TITLE:

Panzer, Claudia; Tesmann, Holger; Wachter, Rolf INVENTOR (S):

Cognis Deutschland G.m.b.H., Germany PATENT ASSIGNEE(S):

PCT Int. Appl., 19 pp. SOURCE:

CODEN: PIXXD2

Patent DOCUMENT TYPE: German LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	ENT	NO.			KIN	D	DATE		AI	PL	ICAT	ION 1	. 01		D	ATE	
WO	2000				A1	-	2000	0511	WC	) 1	.999-1	EP810	05		1	9991	027
			BE,	CH,	CY,	DE	, DK,	ES,	FI, I	'n,	GB,	GR,	IE,	IT,	LU,	MC,	NL,
DE	1985	PT, 0734	SE		A1		2000				.998-				_	9981	
	1131 1131				A1 B1		2001 2004			' 1	.999-9	97130	03		1	9991	027
	R:				DE, LV,			FR,	GB, C	R,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
	2235	551		·	T3		2005	0701		-	.999- .998-				_	9991 9981	
PRIORITY	APP.	LN	INFO	. :							.999-1					9991	

Cosmetic prepns. containing chitosan are rendered compatible with EtOH, e.g. AB for use in hair sprays or deodorants, by neutralizing with lactic acid, pyrrolidonecarboxylic acid, nicotinic acid, hydroxyisobutyric acid, hydroxyisovaleric acid, and their mixts. Suitable compns. contained EtOH 70-90, chitosan neutralization products 0.01-5, other auxiliaries and

additives, and H2O to 100 weight%.

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 9 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

1998:519876 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 129:132548

TITLE: Chitosan salts as crop yield

enhancers.

Heinsohn, George E.; Bjornson, August S. INVENTOR(S):

DCV, Inc., USA PATENT ASSIGNEE(S):

PCT Int. Appl., 27 pp. SOURCE:

CODEN: PIXXD2

Patent DOCUMENT TYPE: LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT	NO.			KIN	D	DATE			APPI	LICAT	ION I	NO.		Di	ATE	
						-									-		
WO	9832	335			A1		1998	0730	1	WO 1	L998-1	JS13:	31		1	9980	122
	W:	AL,	AM,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CN,	CU,	CZ,	EE,	GE,	GW,
											LK,						
		MN,	MX,	NO,	NZ,	PL,	RO,	RU,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	UA,
		UΖ,	VN,	ΥU,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ΤJ,	TM				
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SZ,	ŪĠ,	ZW,	AT,	BE,	CH,	DE,	DK,	ES,	FI,
											SE,						
		GΑ,	GN,	ML,	MR,	NE,	SN,	TD,	TG								
CA	2278	301			A1		1998	0730	(	CA 1	998-2	2278	301		19	9980	122
AU	9862	484			Α		1998	0818	1	AU 1	1998-0	52484	4		19	9980:	122
EP	9646	16			A1		1999	1222	]	EP 1	998-	9046	65		19	9980	122
EP	9646	16			В1		2003	0102									
	R:	DE,	ES,	FR,	GB,	IT,	NL,	PT,	ΙE								

A 20000502 BR 1998-6926 T 20010605 JP 1998-532152 T3 20030701 ES 1998-904665 19980122 BR 9806926 19980122 JP 2001507361 19980122 ES 2189133 19990722 20000531 MX 1999-6833 MX 9906833 Α A 19970123 PRIORITY APPLN. INFO.: US 1997-787870 W 19980122 WO 1998-US1331

Application of a water-soluble salt of chitosan to the ΔR foliage of growing plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties have an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5 weight% chitosan salt using conventional agricultural equipment and techniques.

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 11 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1990:212475 CAPLUS

DOCUMENT NUMBER:

112:212475

TITLE:

Chitosan salts as plant growth

regulators

INVENTOR(S):

Lewis, Robert E.

CODEN: PIXXD2

PATENT ASSIGNEE(S):

Bentech Laboratories, Inc., USA

SOURCE:

PCT Int. Appl., 52 pp.

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
			WO 1000 HU420	19890207
WO 8907395 W: AU, BR, DK,	A1	19890824	WO 1989-US429	19890207
W: AU, BR, DK, RW: AT, BE, CH,	• •	•	. NL. SE	
AU 8931926	A A	19890906	AU 1989-31926	19890207
ZA 8901214	Α	19891129	ZA 1989-1214	19890216
PRIORITY APPLN. INFO.:			US 1988-158227 A	
			US 1988-251693 A	19880927
			WO 1989-US429 A	19890207

Solns. of chitosan salts are applied to crops, in AB order to enhance protein content of the fruits as well as improve resistance to fungal pathogens and increase the yield. Application may be made by seed treatment, irrigation, root dip or foliar spray. A fixing agent or supplemental treatment is used for seed treatments of all but short-lived plants. Chitosan salt solns. may also be applied to crops for improving freeze protection or for seed priming. Most applications require very low mol.-weight chitosan, obtained by partial oxidative depolymn. of com. chitosan. Foliar spray with 50 ppm chitosan lactate increased the yield and protein content of rice.

L20 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:75976 CAPLUS

DOCUMENT NUMBER:

110:75976

TITLE:

Water-soluble chitosan

INVENTOR(S): PATENT ASSIGNEE(S): Kushino, Shigetaka; Asano, Hiroshi Nitta Gelatine Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: LANGUAGE:

SOURCE:

Patent Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63225602 PRIORITY APPLN. INFO.:	A	19880920	JP 1987-59229 JP 1987-59229	19870313 19870313

AB Water-soluble chitosan (I), useful as protein coagulant for medicines and foods, and hair prepns. (no data), was prepared by dehydrating aqueous solns. of salts of I (obtained by reaction of I and acids), then pulverized. Thus, 20 g powdered I was dispersed in 940 mL water, treated with 40 mL 50% aqueous lactic acid to give 2% aqueous solution of I salt, which was evaporated under reduced pressure to 10% concentration, then spray-dried with air at 175° to give water-soluble powdered I. When the powder 15.0 g was added to 100 mL water, it dissolved immediately to give a solution with high concentration

L20 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1977:572265 CAPLUS

DOCUMENT NUMBER:

87:172265

TITLE:

Studies on the utilization of crab shell waste -

chitosan as a coaqulating agent

AUTHOR (S):

Fujita, Takao; Yamauchi, Takafumi; Yanagisawa, Ikuko;

Hiroi, Osamu

CORPORATE SOURCE:

Cent. Res. Lab., Nippon Suisan Co., Ltd., Tokyo, Japan

SOURCE:

AB

Nippon Suisan Kabushiki Kaisha Chuo Kenkyusho Hokoku

(1976), 11, 49-55

CODEN: NSKHA2; ISSN: 0369-5735

DOCUMENT TYPE:

Journal Japanese

LANGUAGE:

HCHO was sprayed on powdered chitin prepared from king crab shell to obtain chitosan salt containing H2O 10 and HCHO 18%, which was used for coagulation of clay suspension, wastewater from processing of ground fish meat, and activated sludge. In the coagulation test of clay suspension with 0.1-20 ppm chitosan, the coagulation and settling of clay particles were accelerated with increasing chitosan salt. The chitosan salt also had good coagulation effect for wastewater from ground fish meat

also had good coagulation effect for wastewater from ground fish mean processing and activated sludge.

L26 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:869406 CAPLUS

DOCUMENT NUMBER:

142:154620

TITLE:

Manufacturing method of new functional salt and

development of use thereof

INVENTOR(S):

Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND ·	DATE	APPLICATION NO.	DATE
KR 2001000706	A	20010105	KR 2000-60499	20001006
PRIORITY APPLN. INFO.:			KR 2000-60499	20001006
AB A manufacturing met	hod of	new function	al salt and development	of use thereof

are

provided, which has effects of decreasing blood pressure and antibiosis, by stirring salt and  $\alpha$ -chitosan after dissolving salt to be 20-23% of the saturated solution New functional salt contains

of chitosan dissolved in a salt solution and chitosan is dried and crystallized  $\alpha\text{-chitosan}$  is obtained from shells of crab and shrimp and  $\beta$ -chitosan is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a chloride ion of salt. The content of the chitosan is 0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a chitosan salt solution For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. chitosan salt solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan.

L31 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:846323 CAPLUS

DOCUMENT NUMBER:

142:24852

TITLE:

Chitosan containing

composition for reducing toxicity of

anticancer agent

INVENTOR(S):

Chon, Dong Won; Sung, Yong Kil

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korea, No pp. given

CODEN: KRXXFC

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 173726	B1	19990201	KR 1995-30567	19950919
PRIORITY APPLN. INFO.:			KR 1995-30567	19950919
AB A pharmaceutical co	mposit	ion containi	ng aqueous chitosan as	an active
component for				

reducing toxicity of an anticancer drug and improving anticancer effect is provided which can be effectively used as a safener to an anticancer drug. A composition containing aqueous chitosan having a mol. weight 900-25,000 is

safener to an anticancer drug in which 0.02-1 g anticancer drug is applied to 1 g aqueous chitosan. The anticancer drug is at least one selected from actinomycin D, acralvicine, cyclocytidine, busulfan, chromomycin A3, cisplatin, cytosine arabinoside, daunomycin, 5-FU, L-asparaginase, 6-mercaptopurine, riboside, OK-432, PSK, UFT, vincristine, and vindesine.

L31 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:512437 CAPLUS

DOCUMENT NUMBER:

141:55857

TITLE:

Manufacture of chitosan-containing

composite emulsions with improved volume

efficiency and storage stability, their compositions,

and articles coated with them

INVENTOR(S):

Urakami, Tadashi; Waki, Atsushi; Inui, Kuniaki; Matoba, Yasuhiro; Taichi, Ikuo; Imashiro, Hideki;

Irie, Yasuhiro

PATENT ASSIGNEE(S):

Kowa Chemical Industries Co., Ltd., Japan; Chuo Rika

Kogyo Corporation

SOURCE:

Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
				<b>-</b>
JP 2004175876	A	20040624	JP 2002-342283	20021126
JP 3789887	B2	20060628		
PRIORITY APPLN. INFO.:			JP 2002-342283	20021126

The method contains polymerizing radically polymerizable monomers in the presence of chitosan (derivs.) by adding emulsions of them to reaction system successively or intermittently. Thus, dropping a prepolymd. emulsion containing Adeka Reasoap ER 20 (nonionic reactive emulsifier) 77.3, Adeka Reasoap ER 30 (nonionic reactive emulsifier) 5, Me methacrylate 90, cyclohexyl methacrylate 60, 2-ethylhexyl acrylate 92, C 60M (chitosan) 8, adipic acid 6 parts to a reactor at 60° for 2 h, aging it at 70° for 2 h, and applying it to a plaster board gave a coating

showing good dryability, alkali resistance, and deodorant properties.

L31 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2003:757430 CAPLUS

DOCUMENT NUMBER:

139:256713

TITLE:

Chitosan-containing

composition for improving disease resistance

and growth of plants

INVENTOR(S):

Sakurai, Haseo; Fukuya, Hiroki; Anzai, Fukumi

PATENT ASSIGNEE(S): SOURCE:

Showa Denko K. K., Japan PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND DATE									DATE				
			<del>-</del>			-									_		<b>-</b>
WO	2003	0776	54		À1		2003	0925	1	WO 2	- 003	JP34'	72		2	0030	320
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	KΕ,	KG,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,
							MK,										
							SE,										
							ΥU,							•			
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KZ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
							IE,										
							CM,										
AU	2003	2174	84		A1		2003	0929		AU 2	003-	2174	84	•	2	0030	320
JР	2003	3421	05		Α		2003	1203	,	JP 2	003-	7785	0		2	0030	320
JР	3781	733			B2		2006	0531		•							
EP	1484	968			A1		2004	1215	:	EP 2	003-	7128	13		2	0030	320
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	
CN	1642	419	-		Α		2005	0720		CN 2	003-	8063	95		2	0030	320
	2005															0050	
PRIORITY									,	JP 2	002-	7796	5	2	A 2	0020	320
•	•							1	US 2	002-3	3672	14P	1	2	0020	326	
									1	WO 2	003-	JP34'	72	ī	V 2	0030	320

A composition for improving disease resistance and growth of plants comprises AB (A) a chitosan having a mol. weight of 3,000 to 60,000, (B) a chitosan having a mol. weight of 35,000 to 90,000 (provided that the mol. weight of chitosan (A)

and the mol. weight of chitosan (B) are different) and (C) a lactic acid and/or a succinic acid. By using the composition of the present invention wherein two kinds of chitosans having different mol. wts., an effect of enhancing stable and high disease resistance and improving growth can be exerted on plants.

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS 5 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1998:764027 CAPLUS

DOCUMENT NUMBER:

130:48702

TITLE:

Chitosan-containing

compositions for improving plant disease

resistance

INVENTOR(S):

Vasiljevich, Novozhilov kapiton; Leonidovich, Tjuterev Stanislav; Aleksandrovich, Tarlakovskij Stanislav; Sergeevich, Jaubchik Mikhail; Filippovich, Kolomiets Aleksej; Fedorovich, Panarin Evgenij; Jakovlevich, Ismailov Eduard; Ismailovich, Gamza-Zade Arif;

Jakovlevich, Ismailov Vladimir; Ivanovich, Begunov

Ivan

PATENT ASSIGNEE(S):

Iskra Industry Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese

LANGUAGE:

SOURCE:

Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND		DATE		
				•	
JP 10309129	Α	19981124	JP 1997-282316		19971015
JP 3356973	B2	20021216			
RU 2127056	C1	19990310	RU 1997-101133´		19970123
RU 2158510	C2	20001110	RU 1997-107927		19970515
PRIORITY APPLN. INFO.:			RU 1997-101133	Α	19970123
			RU 1997-107927	Α	19970527

AB Compns. for enhancing resistance to plant diseases comprise chitosan; lactic acid and/or succinic acid, optionally mixed with glutamic acid or its salts; and 1-3 kinds of biol. active materials selected from phytohormones, unsatd. fatty acids or derivs., alkyldimethylbenzylammonium salts of crotonic acid-vinylpyrrolidone copolymer, phenolic acids, and inorg. salts; and water. Thus, seed treatment with an aqueous solution containing

chitosan 0.5 and succinic acid 0.5% by weight was effective for controlling Helminthosporium sativum in wheat.

L31 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1998:576618 CAPLUS

DOCUMENT NUMBER:

129:217686

TITLE:

Biodegradable and transparent chitosan-

containing compositions and their

manufacture

INVENTOR (S):

Sumida, Hiroshi; Yoshimoto, Katsuhiko; Yoshimura,

Osamu; Ueda, Kazumasa Negami Kogyo K. K., Japan

PATENT ASSIGNEE(S): SOURCE:

Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10231382	A	19980902	JP 1997-36725	19970220
JP 3799117	B2	20060719	•	
				4 4 4 4 4 4 4 4 4

PRIORITY APPLN. INFO.: JP 1997-36725 19970220

AB The compns., useful for foams and films in packaging and agriculture (no data), are manufactured by drying and curing an aqueous mixts. of chitosan, poly(vinyl alc.), and compds. containing ≥2 amino- and/or OH-reactive groups. Thus, a composition containing 20 parts 10% SK 10 AcOH aqueous solution

(chitosan), 80 parts 10% Gohsenol GH 20 aqueous solution (PVA), 0.8 part M 3 (crosslinking agent), and 1 part glycerin was cast on a polyester film and dried at 90-130° for 1 h to give a 30  $\mu$ m-thick transparent film showing tensile strength 6.9 kg/mm2, elongation 69%, good water resistance., biodegradability, and antibacterial properties.

L36 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:77658 CAPLUS

DOCUMENT NUMBER: 141:42688

TITLE: Chitosan salts as nasal sustained delivery systems for

peptidic drugs

AUTHOR(S): Cerchiara, T.; Luppi, B.; Bigucci, F.; Zecchi, V.

CORPORATE SOURCE: Department of Pharmaceutical Sciences, Bologna, 40127,

Italy

SOURCE: Journal of Pharmacy and Pharmacology (2003), 55(12),

1623-1627

CODEN: JPPMAB; ISSN: 0022-3573

PUBLISHER: Pharmaceutical Press

DOCUMENT TYPE: Journal LANGUAGE: English

AB The aim of this study was to describe a sustained drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behavior of vancomycin hydrochloride from the phys. mixts. at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by chitosan salts and, in particular, chitosan hydrochloride provided the lowest

release of vancomycin.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:795160 CAPLUS

DOCUMENT NUMBER: 140:43678

TITLE: Alkaline chitosan solutions

AUTHOR(S): Muzzarelli, Corrado; Tosi, Giorgio; Francescangeli,

Oriano; Muzzarelli, Riccardo A. A.

CORPORATE SOURCE: Faculty of Medicine, Institute of Biochemistry,

Polytechnic University of Marche, Ancona, IT-60100,

Italy

SOURCE: Carbohydrate Research (2003), 338(21), 2247-2255

CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

Rigid and transparent hydrogels were obtained upon pouring chitosan salt solns. into saturated ammonium hydrogen carbonate. Incubation at 20 °C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO2-NH4+ a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, mol. sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate, and lactate salts. Their hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solns. at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 °C). Citrate could cross-link chitosan and impart insoly. to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH4HCO3 treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solns. of mixed chitosan carbamate and alginate were spray-dried at 115 °C to manufacture chitosan-alginate microspheres having prevailing diameter approx 2 μ.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS

L36 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:335241 CAPLUS

138:175642 DOCUMENT NUMBER:

Influence of different chitosan salts on the release TITLE:

of sodium diclofenac in colon-specific delivery

Orienti, I.; Cerchiara, T.; Luppi, B.; Bigucci, F.; AUTHOR (S):

Zuccari, G.; Zecchi, V.

Department of Pharmaceutical Sciences, University of CORPORATE SOURCE:

Bologna, Bologna, 40127, Italy

International Journal of Pharmaceutics (2002), SOURCE:

238(1-2), 51-59

CODEN: IJPHDE; ISSN: 0378-5173

Elsevier Science B.V. PUBLISHER:

Journal DOCUMENT TYPE: English LANGUAGE:

Chitosan (CH) was dissolved in aqueous solns. containing aspartic, glutamic,

hydrochloric, lactic and citric acids to obtain different chitosan salts.

Chitosan salts were collected from the solns. by spraydrying and the powders obtained were mixed with Sodium Diclofenac (SD), taken as a model anti-inflammatory drug. This study evaluated in vitro the influence of acid type on the release behavior of SD from the phys. mixture during gastrointestinal transit. The phys. mixture of the chitosan salts with SD provided slower drug release than the pure drug

both in acidic and alkaline pHs. In addition, the interaction with  $\beta$ -glucosidase at pH 7.0 enhanced the release rate. Among the

chitosan salts used, glutamic and aspartic salts provided the best control

of release.

THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS 39 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

MEDLINE on STN L36 ANSWER 4 OF 4 2004039752 MEDLINE ACCESSION NUMBER: PubMed ID: 14738587

DOCUMENT NUMBER: Chitosan salts as nasal sustained delivery systems for TITLE:

peptidic drugs.

Cerchiara T; Luppi B; Bigucci F; Zecchi V AUTHOR:

Department of Pharmaceutical Sciences, Via S. Donato 19/2, CORPORATE SOURCE:

40127 Bologna, Italy.

The Journal of pharmacy and pharmacology, (2003 Dec) Vol. SOURCE:

55, No. 12, pp. 1623-7.

Journal code: 0376363. ISSN: 0022-3573.

England: United Kingdom PUB. COUNTRY:

Journal; Article; (JOURNAL ARTICLE) DOCUMENT TYPE:

English LANGUAGE:

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200403

Entered STN: 24 Jan 2004 ENTRY DATE:

Last Updated on STN: 31 Mar 2004 Entered Medline: 30 Mar 2004

The aim of this study was to describe a sustained drug release system AB

based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate

and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the physical mixtures at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by chitosan salts and, in particular, chitosan hydrochloride provided the lowest release of vancomycin.

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L39 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:847502 CAPLUS

DOCUMENT NUMBER: 142:112921

TITLE: Extension of shelf life of white rice cake and

uncooked noodle using chitosan Im, Jong Hwan; Lee, Jang Wook

INVENTOR(S): Im, Jong
PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

KR 2000030496 A 20000605 KR 2000-10804 20000225

PRIORITY APPLN. INFO.: KR 2000-10804 20000225

AB Extension of shelf life and prevention of deterioration due to microorganisms in white rice cake and uncooked noodle are provided by using chitosan and lactic acid and which is substitute for alc. White rice cake is soaked or sprayed with the solution of chitosan with lactic acid before packaging. For uncooked noodles, solution of chitosan and lactic acid is added to water for kneading dough or finished noodle is soaked or sprayed with the chitosan solution. Thus, the method does not raise the production cost and can increase the effect 2 times compared to the method using alc.

L39 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:172909 CAPLUS

DOCUMENT NUMBER: 138:210388

TITLE: Chitosan-coated web and process for making the same

INVENTOR(S): Tamburro, Maurizio; D'Alesio, Nicola; Pesce,

Antonella; Di Cintio, Achille; Carlucci, Giovanni;

Tordone, Adelia

PATENT ASSIGNEE(S): The Procter & Gamble Company, USA

SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION	NO.		D.	ATE	
EP	1287																
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
					LV,												
ΕP	1287	836			A2		2003	0305		EP 2	002-	1801	2		2	0020	812
EP	1287	836			<b>A3</b>		2003	0716						•			
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	SK		
EP	1287	837			A2		2003	0305	•	EP 2	002-	1801	3		2	0020	812
EP	1287	837			<b>A</b> 3		2003	0716									
ΕP	1287	837			B1		2006	0510									
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	SK		
AT	3256	26			T		2006	0615		AT 2	002-	1801	3		2	0020	812
WO	2003	0180	73		A2		2003	0306	1	WO 2	002-1	US26:	998		2	0020	823
	2003																
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
					CZ,												
					ID,												

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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                            WO 2002-US26999
                                                                    20020823
                          A2
                                20030306
     WO 2003018074
                          A3
                                20031113
     WO 2003018074
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                                                    20020823
                                20030310
                                           AU 2002-327522
                          A1
     AU 2002327522
                                                                    20020823
                                            EP 2002-763516
                          A2
                                20040519
     EP 1418953
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
                                            EP 2002-766091
                                                                    20020823
                                20040609
     EP 1425049
                          A2
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
                                20040803
                                            BR 2002-12094
                                                                    20020823
     BR 2002012094
                          Α
                                                                    20020823
                                20040803
                                            BR 2002-12095
     BR 2002012095
                          Α
                                            JP 2003-522589
                                                                    20020823
                                20050707 -
     JP 2005519653
                          Т
                                20050818
                                            JP 2003-522588
                                                                    20020823
                          Т
     JP 2005524416
                                            US 2004-785277
                                                                    20040224
                          A1
                                20040826
     US 2004166307
                                            US 2004-785464
                                                                    20040224
                                20040826
     US 2004167487
                          A1
                                            EP 2001-120342
                                                                A 20010824
PRIORITY APPLN. INFO.:
                                                                A 20020812
                                            EP 2002-18012
                                            EP 2002-18013
                                                                A 20020812
                                            WO 2002-US26998
                                                                W 20020823
                                            WO 2002-US26999
                                                                 W 20020823
     The present invention relates to a particulate chitosan coated web for use
AB
     in disposable absorbent articles and a process for making the same.
     chitosan particles have a mean diameter of not more than 300 \mu. The
     process involves the step applying onto the surface of a precursor web a
     solution or a dispersion comprising chitosan material in the form of a
     spray of droplets having a mean diameter of less than 1500 \mu.
                               THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L39 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:
                         2001:7489 CAPLUS
DOCUMENT NUMBER:
                         134:71036
                         Method for treating cotyledonous plants with chitosan
TITLE:
                         salts for improving growth
                         Heinsohn, George E.; Bjornson, August S.
INVENTOR(S):
PATENT ASSIGNEE(S):
                         DCV, Inc., USA
                         U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 13,945,
SOURCE:
                         abandoned.
                         CODEN: USXXAM
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PATENT NO. KIND DATE APPLICATION NO. DATE
US 6167652 B1 20010102 US 1999-237065 19990126

Patent

English

DOCUMENT TYPE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

LANGUAGE:

B2 19970123 US 1997-787870 PRIORITY APPLN. INFO.: US 1998-13945 B2 19980127

Application of a water-soluble salt of chitosan to the foliage of growing AB plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties enjoy an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5% weight chitosan salt using conventional agricultural equipment and techniques.

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2000:314503 CAPLUS

DOCUMENT NUMBER:

132:325816

TITLE:

Ethanolic cosmetic preparations containing chitosan

ADDITION NO

DATE

W 19991027

Panzer, Claudia; Tesmann, Holger; Wachter, Rolf INVENTOR(S):

PATENT ASSIGNEE(S):

Cognis Deutschland G.m.b.H., Germany

SOURCE:

PCT Int. Appl., 19 pp.

CODEN: PIXXD2

שלאות האידע

DOCUMENT TYPE:

Patent.

LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION: D3 MESTE 370

PA	LEMT.	NO.			KINI	. ر	DATE		AP.	PL.	TCHI	LON 1	NO.			7111		
	- <b></b> -					-						<b>-</b> -			_		<del></del>	
. WO	2000	0257	34		A1		2000	0511	WO	19	999-I	SP81	05		1.	9991	027	
	W:	JP,	US						•									
	RW:	AT,	BE,	CH,	CY,	DE,	DK,	ES,	FI, F	R,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	
	·	PT,																
DE	1985	0734			A1		2000	0511	DE	19	998-1	L985	0734		1	9981	104	
EP	1131	040			A1		2001	0912	EP	19	999-9	9713	03		1	9991	027	
EP	1131				B1		2004											
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB, G	R,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	SI,	LT,	LV,	FI,	RO											
ES	2235	551			Т3		2005	0701	ES	19	999-9	9713	03		_	9991		
PRIORIT	Y APP	LN.	INFO	.:					DE	19	998-1	1985	0734	i	A 1	9981	104	

Cosmetic prepns. containing chitosan are rendered compatible with EtOH, e.g. AB for use in hair sprays or deodorants, by neutralizing with lactic acid, pyrrolidonecarboxylic acid, nicotinic acid, hydroxyisobutyric acid, hydroxyisovaleric acid, and their mixts. Suitable compns. contained EtOH 70-90, chitosan neutralization products 0.01-5, other auxiliaries and

additives, and H2O to 100 weight%. THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 9

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER:

L39 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN 1999:15226 CAPLUS

DOCUMENT NUMBER:

130:43108

TITLE:

Cosmetic compositions containing a cationic polymer and an active molecule contained in at least a micro or nanoparticulate vector for treating living or inert

WO 1999-EP8105

surfaces

INVENTOR(S):

Derrieu, Guy; Pougnas, Jean Luc; Piat, Jean Philippe Robert Charles; Monginoux, Patricia Anne Laure; Karst,

Christian

PATENT ASSIGNEE(S):

Virbac S. A., Fr. Fr. Demande, 18 pp.

SOURCE: CODEN: FRXXBL

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2761886	A1	19981016	FR 1997-4549	19970414
FR 2761886	B1	20000505		
. US 6500446	B1	20021231	US 1998-59200	19980414
PRIORITY APPLN. INFO.:			FR 1997-4549	A 19970414
AB The title compns.	are disc	closed. A ha	air lotion contained	l octyl stearate
8.00. Emulgade SE	6.00, No	ovasomes 10.0	00, glycerin 5.00, c	decyl oleate 4.00,
cetearyl alc. 1.50	). chitos	san qlycolate	0.15, phenylethyl	alc. 0.20, and
water q.s. 69.15%.		<b>J</b> 1		
water d.s. opira.	•			

L39 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1998:771319 CAPLUS

DOCUMENT NUMBER:

130:29226

TITLE:

Use of sugar derivatives against adhesion of protozoa

and parasites

INVENTOR(S):

Wolf, Florian; Schreiber, Joerg; Maurer, Peter;

Buenger, Joachim

PATENT ASSIGNEE(S):

Beiersdorf A.-G., Germany

SOURCE:

Ger. Offen., 20 pp. CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19721411	A1	19981126	DE 1997-19721411	19970522
PRIORITY APPLN. INFO.:			DE 1997-19721411	19970522
			and the second and the second	organ

AB Adhesion of pathogenic protozoa and parasites to the skin or organ surfaces is inhibited by topical, oral, or parenteral administration of compns. containing antiadhesive carbohydrates or carbohydrate derivs. such as esters with fatty acids. Thus, a water-in-oil lotion contained paraffin oil 25.00, silicone oil 2.00, ceresin 1.50, lanolin alc. 0.50, glucose sesquiisostearate 2.50, cetearyl glucoside 1.00, perfume, preservative, and H2O to 100.00 weight%.

L39 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1995:621724 CAPLUS

DOCUMENT NUMBER:

123:17449

TITLE:

Hair preparations containing linear

polysiloxane-polyoxyalkylene block copolymers and

cationic polymers Dupuis, Christine

PATENT ASSIGNEE(S):

Oreal S. A., Fr. Fr. Demande, 19 pp.

SOURCE:

Fr. Demande, 19 p

SOURCE:

CODEN: FRXXBL

DOCUMENT TYPE: LANGUAGE:

INVENTOR(S):

Patent

FAMILY ACC. NUM. COUNT:

French

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2709954	A1	19950324	FR 1993-10967	19930915
FR 2709954	B1	19951020		

PRIORITY APPLN. INFO.: FR 1993-10967 19930915

AB The title hair prepns. which have good fixating ability are disclosed. A hair lotion contained Jaguar C 13S 1, a linear polysiloxane-polyoxyalkylene block copolymer 1, EtOH 8.6, perfumes and preservatives q.s., and water q.s. 100g.

L39 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1990:212475 CAPLUS

DOCUMENT NUMBER:

112:212475

TITLE:

Chitosan salts as plant growth regulators

Lewis, Robert E. INVENTOR(S):

PATENT ASSIGNEE(S):

Bentech Laboratories, Inc., USA

SOURCE:

PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DAT	TE APPLICATION NO.	DATE
WO 8907395	A1 198	390824 WO 1989-US429	19890207
W: AU, BR, DK,	FI, JP, NO	), SU	
RW: AT, BE, CH,	DE, FR, GE	B, IT, LU, NL, SE	
AU 8931926		390906 AU 1989-31926	19890207
ZA 8901214	A 198	391129 ZA 1989-1214	19890216
PRIORITY APPLN. INFO.:		US 1988-158227 A	19880219
		US 1988-251693 A	19880927
		WO 1989-US429 A	19890207

Solns. of chitosan salts are applied to crops, in order to enhance protein AB content of the fruits as well as improve resistance to fungal pathogens and increase the yield. Application may be made by seed treatment, irrigation, root dip or foliar spray. A fixing agent or supplemental treatment is used for seed treatments of all but short-lived plants. Chitosan salt solns. may also be applied to crops for improving freeze protection or for seed priming. Most applications require very low mol.-weight chitosan, obtained by partial oxidative depolymn. of com. chitosan. Foliar spray with 50 ppm chitosan lactate increased the yield and protein content of rice.

L41 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:1015840 CAPLUS

DOCUMENT NUMBER:

141:428027

TITLE:

Method for producing a chitosan-bound salt with

antihypertensive activity

INVENTOR(S):

Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park,

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT	NO.			KIN	)	DATE			APPL:	ICAT:	ION I	NO.		D	ATE		
WO	2004	 1006	81		A1	-	2004	1125	,	WO 2	 004-1	KR41	0		20	0402	227	
	W:	AE,	AG.	AL,	AM,	AT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,	
		CN.	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	·EG,	ES,	FΙ,	GB,	GD,	
		GE.	GH.	GM,	HR.	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	ΚZ,	LC,	LK,	
		LR.	LS.	LT.	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	NO,	
		NZ.	OM.	PG.	PH.	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ΤJ,	
		TM.	TN.	TR.	TT.	TZ.	UA,	ŪĠ,	US,	UZ,	VC,	VN,	YŪ,	ZA,	ZM,	ZW		
	RW:	BW.	GH.	GM.	KE.	LS.	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	
	2000	BY.	KG.	K2.	MD.	RU.	ТJ,	TM.	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
		ES.	FT.	FR.	GB.	GR.	HU,	IE.	IT.	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
		TR	BF.	B.T.	CF.	CG.	CI,	CM.	GA,	GN,	GO,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG
КĎ	2004	0995	87	20,	Δ,	,	2004	1202	,	KR 2	003-	3161	6		2	0030	519	
FD	1631	155	· /		Δ1		2006	0308		EP 2	004-	7155	73		2	0040	227	
13.5		DE,																
.TD	2006						2006	0810		JP 2	005-	5184	55		2	0040	227	
	2005						2005			US 2	004-	5184	19		2	0041	217	
PRIORIT					***		2000					_	6		A 2	0030	519	
FKIOKII	I AFF	TITA .	11110	• •							004-				W 2	0040	227	

The present invention relates to a method for producing a chitosan-bound AB salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step. THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 5

L41 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1990:185865 CAPLUS

DOCUMENT NUMBER:

112:185865

TITLE:

Polyurethane sheet containing chitosan salts for treatment of decubitus ulcer

INVENTOR(S):

PATENT ASSIGNEE(S):

Morita, Isamu; Sugimoto, Tadayuki Daiichi Kogyo Seiyaku Co., Ltd., Japan

Jpn. Kokai Tokkyo Koho, 3 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

DATE

JP 01207238 A 19890821 JP 1988-33552 19880215 PRIORITY APPLN. INFO.: JP 1988-33552 19880215

A sheet for treatment of decubitus ulcer consists of a polyurethane foam sheet containing chitosan salt particles. Thus, a cream was prepared using polyurethane 390 and chitosan lactate 4.5 parts by weight with foam-producing agents and a thickener, and spread over a nonwoven sheet of polyester.

L42 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:716545 CAPLUS

DOCUMENT NUMBER:

135:222846

TITLE:

Salt- and drought-resistant agent for plant and its

application

INVENTOR (S):

Zhao, Kefu; Cao, Ziyi; Song, Jie; Zhang, Hui; Zhao,

Yanxiu

PATENT ASSIGNEE(S):

Shandong Normal University, Peop. Rep. China

SOURCE:

Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.

APPLICATION NO.

DATE

CODEN: CNXXEV

DATE

DOCUMENT TYPE:

Patent

LANGUAGE:

Chinese

KIND

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

CN 1290483	Α	20010411	CN 1999-112463	19990930
PRIORITY APPLN. INFO.:			CN 1999-112463	19990930
AB The title agent co GA4 and their K or salicylate, K sali Pr salicylate, ami calcium salt from Ca butyrate, Ca va growth regulators,	Na sal cylate, no olige one or s lerate, organi	ts, salicyli Ca salicyla osaccharide more of CaCl Ca citrate, c acid, mine	compds. from one or of a cacid derivs. from of the cacid derivs. End (O-carboxymethyl chief 2, Ca(NO3)2, Ca(Ac)2 etc. Vitamins, aminoral substance, surface gent. The agent is a compact of the cacid derivative of the	more of GA3, GA7, one or more of Na c salicylate and cosan), and , Ca propionate, no acids, plant ctant,
crops growing in s	alty so	il, and used	l to immerse seeds, s	pray
	ith see	ds. The age	nt is drought-resista	ant and
salt-resistant.				

L42 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:545443 CAPLUS

DOCUMENT NUMBER:

135:126914

TITLE:

Hair aerosol foams containing thickeners and

propellants

INVENTOR(S):

Schmenger, Juergen; Abels, Wilhelm; Jahedshoar,

Mehrdad

PATENT ASSIGNEE(S):

Wella A.-G., Germany

SOURCE:

PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent German

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
WO 2001052800	A1 20010726	WO 2001-EP32	20010104
W: AE, AG, A	L, AM, AT, AU, AZ,	BA, BB, BG, BR, BY, BZ,	CA, CH, CN,
CR, CU, C	Z, DE, DK, DM, DZ,	EE, ES, FI, GB, GD, GE,	GH, GM, HR,
HU. ID. II	L, IN, IS, JP, KE,	KG, KP, KR, KZ, LC, LK,	LR, LS, LT,
LU, LV, M	A, MD, MG, MK, MN,	MW, MX, MZ, NO, NZ, PL,	PT, RO, RU,
SD, SE, SO	G, SI, SK, SL, TJ,	TM, TR, TT, TZ, UA, UG,	US, UZ, VN,
		KZ, MD, RU, TJ, TM	
RW: GH, GM, KI	E, LS, MW, MZ, SD,	SL, SZ, TZ, UG, ZW, AT,	BE, CH, CY,
DE, DK, E	S, FI, FR, GB, GR,	IE, IT, LU, MC, NL, PT,	SE, TR, BF,
BJ, CF, Co	G, CI, CM, GA, GN,	GW, ML, MR, NE, SN, TD,	TG
	A1 20010816	DE 2000-10002513	20000121
AU 2001025131		AU 2001-25131	
EP 1162938	A1 20011219	EP 2001-900386	20010104
	B1 20031105		
R: AT, BE, CI	H, DE, DK, ES, FR,	GB, GR, IT, LI, LU, NL,	SE, MC, PT,

IE, SI, LT, LV, FI, RO 20010104 BR 2001-4147 BR 2001004147 Α 20020115 20010104 JP 2003520219 Т 20030702 JP 2001-552848 20010104 AT 253350 T 20031115 AT 2001-900386 20020128 US 2002197213 A1 20021226 US 2002-937228 US 6737046 B2 20040518 A 20000121 DE 2000-10002513 PRIORITY APPLN. INFO.: W 20010104 WO 2001-EP32

MARPAT 135:126914 OTHER SOURCE(S):

A composition for a hair preparation is disclosed, preferably in the form of an optically clear, transparent or translucent product which can be used as an aerosol foam. The composition contains (A) at least one nonionic, amphiphilic associative thickener in a suitable cosmetic base and (B) at least one propellant. The agent can be used as a leave-in hair cure or as a hair rinse for conditioning hair and providing it with shine and volume Thus, a mild hair formulation contained Arquad-1225 0.8, Dow Corning-193 1.0, Pure Thix M 1.0, Rewoteric AMCAS 0.5, and water to 100 g. The composition also contained di-Me ether and F152a.

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 3 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2001:7489 CAPLUS

DOCUMENT NUMBER:

134:71036

TITLE:

Method for treating cotyledonous plants with

chitosan salts for improving growth

INVENTOR(S):

Heinsohn, George E.; Bjornson, August S.

PATENT ASSIGNEE(S):

DCV, Inc., USA

SOURCE:

U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 13,945,

abandoned. CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
					-
US 6167652	B1	20010102	US 1999-237065	1999012	6
PRIORITY APPLN. INFO.:			US 1997-787870	B2 1997012	3
			US 1998-13945	B2 1998012	7

Application of a water-soluble salt of chitosan to the foliage of growing AB plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties enjoy an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5% weight chitosan salt using conventional agricultural equipment and techniques.

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 9 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2000:314503 CAPLUS

DOCUMENT NUMBER:

132:325816

TITLE:

Ethanolic cosmetic preparations containing chitosan Panzer, Claudia; Tesmann, Holger; Wachter, Rolf

INVENTOR(S):

Cognis Deutschland G.m.b.H., Germany

PATENT ASSIGNEE(S):

SOURCE:

PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent German

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
APPLICATION NO. DATE
                      KIND DATE APPLICATION NO.
    PATENT NO.
                       ----
                       A1 20000511 WO 1999-EP8105
                                                                19991027
    WO 2000025734
        W: JP, US
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
                                                                19981104
                              20000511 DE 1998-19850734
    DE 19850734
                        A1
                                                                19991027
                                       EP 1999-971303
                              20010912
    EP 1131040
                        A1
                              20041215
    EP 1131040
                       B1
      R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
                                                                19991027
                              20050701
                                         ES 1999-971303
    ES 2235551
                        T3
                                                          A 19981104
                                          DE 1998-19850734
PRIORITY APPLN. INFO.:
                                                           W 19991027
                                          WO 1999-EP8105
    Cosmetic prepns. containing chitosan are rendered compatible with EtOH, e.g.
AΒ
    for use in hair sprays or deodorants, by neutralizing with
    lactic acid, pyrrolidonecarboxylic acid, nicotinic acid, hydroxyisobutyric
    acid, hydroxyisovaleric acid, and their mixts. Suitable compns. contained
    EtOH 70-90, chitosan neutralization products 0.01-5, other auxiliaries and
    additives, and H2O to 100 weight%.
                             THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
                       9
REFERENCE COUNT:
                             RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L42 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN
                       1999:375432 CAPLUS
ACCESSION NUMBER:
                       131:23503
DOCUMENT NUMBER:
                       Vaccine compositions for mucosal administration
TITLE:
                       comprising chitosan
                       Makin, Jill Catherine; Bacon, Andrew David
INVENTOR(S):
                       Medeva Europe Limited, UK
PATENT ASSIGNEE(S):
                       PCT Int. Appl., 32 pp.
SOURCE:
                       CODEN: PIXXD2
                       Patent
DOCUMENT TYPE:
                       English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
                       1
PATENT INFORMATION:
                       KIND DATE APPLICATION NO. DATE
    PATENT NO.
                                         _____
                              _ _ _ _ _ _ _
    ______
                       _ _ _ _
                       A1 19990610 WO 1998-GB3534
    WO 9927960
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
            KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
            NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
            UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
            FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                       CA 1998-2310718
                                                               19981127
    CA 2310718
                        A1 19990610
                                         AU 1999-15691
                                                                19981127
                        Α
                              19990616
    AU 9915691
    AU 745934
                        B2
                              20020411
                                                                19981127
                       A1 20001115
B1 20031001
                                       EP 1998-959998
                              20001115
    EP 1051190
    EP 1051190
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, FI
                                         JP 2000-522945
    JP 2001524532
                              20011204
    A 250937 T NO 2000002741 A US 6534065 B1
                                         NZ 1998-504504
                                                               19981127
                              20020531
                                         AT 1998-959998
                                                              19981127
                              20031015
                                         NO 2000-2741
                              20000526
                                                            20000530
                                         US 2000-583124
                              20030318
```

The invention provides a vaccine composition adapted for mucosal AΒ administration; the composition comprising one or more influenza vaccine

PRIORITY APPLN. INFO.:

GB 1997-25084

WO 1998-GB3534 W 19981127

A 19971128

antigens and an effective adjuvant amount of an acid addition salt of a chitosan wherein the chitosan is a deacetylated chitin which is at least 80 % deacetylated and has a weight average mol. weight of between 10,000 and 100,000.

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

DATE

L42 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

5

ACCESSION NUMBER:

1999:172578 CAPLUS

DOCUMENT NUMBER:

130:227723

TITLE:

In situ formation of bioadhesive polymeric material

APPLICATION NO.

INVENTOR(S): Dettmar, Peter William; Jolliffe, Ian Gordon;

Skaugrud, Oyvind

PATENT ASSIGNEE(S):

Reckitt & Colman Products Limited, UK

SOURCE:

PCT Int. Appl., 55 pp.

ከልሞፍ

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

KIMD

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PF	TENT	NO.			KINI	,			AP						-		
WC							1999	0304	WO	1:	998-0	3B24	10				
	W:	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG, B	R,	BY,	CA,	CH,	ÇN,	CU,	CZ,	DΕ,
		DK,	EE,	ES,	FI,	GB,	GE,	GH,	GM, H	R,	HU,	ID,	IL,	IS,	JP,	KΕ,	KG,
		KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT, L	U,	LV,	MD,	MG,	MK,	MN,	MW,	MX,
		NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE, S	G,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,
		UA,	UG,	US,	UZ,	VN,	YU,	ZW									
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SZ,	UG, Z	W,	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,
		FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC, N	L,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,
		CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN, T	D,	TG						
GE	2328	443			Α		1999	0224	GB	1	998-:	1709	3		1	9980	807
C F	2228	443			R		2001	<b>Ი</b>									
CA	2301	165			A1		1999	0304	CA	. 1	998-2	2301	165		1	9980	810
AU	9887	389			Α		1999	0316	AU	1:	998-1	8738	9		1	9980	810
AU	7377	14			B2		2001										
EF	1007	015			A1		2000	0614	EP	1:	998-9	9387	35		1	9980	810
EF	1007						2003										
							GB,	GR,	IT, L	ıI,	SE						
BR	9811 2000	245			Α		2000	0718	BR	1:	998-:	1124	5		1	9980	810
HU	2000	0360	2		A2				HU								
JP	2001 2445	51354	49		$\mathbf{T}$		2001		JP								
ΑT	2445	62			T		2003		ΓA								
ES	2198	062			Т3		2004	0116	ES	1:	998-9	9387	35		1	9980	810
ZA	9807	516			Α		1999	0222	ZA	. 1	998-	7516			1	9980	820
MX	2000	0181	3				2000	1026	MX	2	000-1	1818			2	0000	221
US	6391	294			B1		2002	0521	US	2	000-4	1857	71	•	2	0000	412
PRIORIT	Y APP	LN.	INFO	. :							997-:						
									GB	1	997-3	1762	7	1	1	9970	821
											998-0						
AB Th	e inv	entid	on pi	rovi	des a	a ph	arma	ceut	ically	a	ccept	cable	e po	lymeı	ric 1	nate:	rial

The invention provides a pharmaceutically acceptable polymeric material formed in situ at a body surface and a process for the preparation of material. The polymeric material is formed by applying an anionic polymer and a cationic polymer to the surface in the presence of water. Thus, an anionic solution contained sodium alginate 2, and methylparaben (preservative) 0.1 g, flavors, sweeteners, and colors q.s. and water to 100 mL. A cationic solution contained chitosan chloride (Seacure CL 211) 0.4 and methylparaben (preservative) 0.1 g, flavors, sweeteners, colors q.s. and water to 100 mL. Dissolve the Me paraben, flavors, sweeteners and colors in the water. Between 0.2 and 1 mL of each solution may be sprayed simultaneously onto the back of the throat to form a soothing protective film. This film is of particular benefit to those suffering from a sore throat.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1998:519876 CAPLUS

DOCUMENT NUMBER:

129:132548

TITLE:

Chitosan salts as crop yield

enhancers.

INVENTOR(S):

Heinsohn, George E.; Bjornson, August S.

PATENT ASSIGNEE(S):

DCV, Inc., USA

SOURCE:

PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
WO 9832335		19980730	WO 1998-US1331	19980122		
			BR, BY, CA, CN, CU, CZ	, EE, GE, G₩,		
HU, IL,	IS, JP, K	G, KP, KR,	KZ, LC, LK, LR, LT, LV	, MD, MG, MK,		
MN, MX,	NO, NZ, P	L, RO, RU,	SG, SI, SK, SL, TJ, TM	, TR, TT, UA,		
			KZ, MD, RU, TJ, TM			
RW: GH, GM,	KE, LS, M	W, SD, SZ,	UG, ZW, AT, BE, CH, DE	, DK, ES, FI,		
FR, GB,	GR, IE, I'	T, LU, MC,	NL, PT, SE, BF, BJ, CF	, CG, CI, CM,		
GA, GN,	ML, MR, NI	E, SN, TD,	TG			
CA 2278301	A1	19980730	CA 1998-2278301	19980122		
			AU 1998-62484	19980122		
EP 964616	<b>A</b> 1	19991222	EP 1998-904665	19980122		
EP 964616	B1	20030102				
R: DE, ES,	FR, GB, I'	T, NL, PT,	IE			
BR 9806926	A	20000502	BR 1998-6926	19980122		
JP 2001507361	T		JP 1998-532152	19980122		
ES 2189133	<b>T</b> 3	20030701	ES 1998-904665			
MX 9906833	A	20000531	MX 1999-6833	19990722		
PRIORITY APPLN. INFO.	:		US 1997-787870	A 19970123		
			WO 1998-US1331	W 19980122		

AB Application of a water-soluble salt of chitosan to the foliage of growing plants increases the yield of vegetables, tubers, cereal grains, fruits and blossoms. Plants so treated are healthier, sturdier, more resistant to drought and many varieties have an extended period of production The plants may be effectively and conveniently treated by spraying the foliage with a solution containing 0.01-1.5 weight% chitosan salt using conventional agricultural equipment and techniques.

REFERENCE COUNT:

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:212475 CAPLUS

DOCUMENT NUMBER:

112:212475

TITLE:

Chitosan salts as plant growth

regulators

INVENTOR(S):

Lewis, Robert E.

PATENT ASSIGNEE(S):

Bentech Laboratories, Inc., USA

SOURCE:

PCT Int. Appl., 52 pp.

DOCUMENT TYPE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

```
19890207
                                           WO 1989-US429
                               19890824
    WO 8907395
                         A1
        W: AU, BR, DK, FI, JP, NO, SU
        RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE
                                                                  19890207
                               19890906
                                           AU 1989-31926
                        Α
    AU 8931926
                                                                  19890216
                         Α
                               19891129
                                           ZA 1989-1214
    ZA 8901214
                                                              A 19880219
                                           US 1988-158227
PRIORITY APPLN. INFO.:
                                                              A 19880927
                                           US 1988-251693
                                                              A 19890207
                                           WO 1989-US429
```

Solns. of chitosan salts are applied to crops, in AB order to enhance protein content of the fruits as well as improve resistance to fungal pathogens and increase the yield. Application may be made by seed treatment, irrigation, root dip or foliar spray. A fixing agent or supplemental treatment is used for seed treatments of all but short-lived plants. Chitosan salt solns. may also be applied to crops for improving freeze protection or for seed priming. Most applications require very low mol.-weight chitosan, obtained by partial oxidative depolymn. of com. chitosan. Foliar spray with 50 ppm chitosan lactate increased the yield and protein content of rice.

L42 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

1989:75976 CAPLUS ACCESSION NUMBER:

110:75976 DOCUMENT NUMBER:

Water-soluble chitosan TITLE:

Kushino, Shigetaka; Asano, Hiroshi INVENTOR(S): Nitta Gelatine Co., Ltd., Japan PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 5 pp. SOURCE:

CODEN: JKXXAF

Patent DOCUMENT TYPE: Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 63225602	A	19880920	JP 1987-59229	19870313
PRTO	RITY APPLN. INFO.:			JP 1987-59229	19870313
AB	Water-soluble chite	san (I)	, useful as	s protein coagulant for	r medicines and
	foods, and hair pre	epns. (n	o data), wa	as prepared by dehydrat	ting aqueous solns.
of	•	-			_

salts of I (obtained by reaction of I and acids), then pulverized. 20 g powdered I was dispersed in 940 mL water, treated with 40 mL 50% aqueous lactic acid to give 2% aqueous solution of I salt, which was evaporated under reduced

pressure to 10% concentration, then spray-dried with air at 175° to give water-soluble powdered I. When the powder 15.0 g was added to 100 mL water, it dissolved immediately to give a solution with high concentration

L42 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:572265 CAPLUS

DOCUMENT NUMBER: 87:172265

Studies on the utilization of crab shell waste -TITLE:

chitosan as a coagulating agent

Fujita, Takao; Yamauchi, Takafumi; Yanagisawa, Ikuko; AUTHOR (S):

Hiroi, Osamu

Cent. Res. Lab., Nippon Suisan Co., Ltd., Tokyo, Japan CORPORATE SOURCE: SOURCE:

Nippon Suisan Kabushiki Kaisha Chuo Kenkyusho Hokoku

(1976), 11, 49-55

CODEN: NSKHA2; ISSN: 0369-5735

Journal DOCUMENT TYPE: Japanese LANGUAGE:

HCHO was sprayed on powdered chitin prepared from king crab shell to obtain chitosan salt containing H2O 10 and HCHO 18%, which was used for coagulation of clay suspension, wastewater from processing of ground fish meat, and activated sludge. In the coagulation test of clay

suspension with 0.1-20 ppm chitosan, the coagulation and settling of clay particles were accelerated with increasing chitosan salt . The chitosan salt also had good coagulation effect for wastewater from ground fish meat processing and activated sludge.

L42 ANSWER 23 OF 26 MEDLINE ON STN ACCESSION NUMBER: 2004039752 MEDLINE DOCUMENT NUMBER: PubMed ID: 14738587

TITLE: Chitosan salts as nasal sustained delivery systems for peptidic drugs.

AUTHOR: Cerchiara T; Luppi B; Bigucci F; Zecchi V

CORPORATE SOURCE: Department of Pharmaceutical Sciences, Via S. Donato 19/2,

40127 Bologna, Italy.

SOURCE: The Journal of pharmacy and pharmacology, (2003 Dec) Vol.

55, No. 12, pp. 1623-7.

Journal code: 0376363. ISSN: 0022-3573.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200403

ENTRY DATE: Entered STN: 24 Jan 2004

Last Updated on STN: 31 Mar 2004 Entered Medline: 30 Mar 2004

AB The aim of this study was to describe a sustained drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the physical mixtures at pH 5.5 and 7.4. In-vitro release of vancomycin was retarded by chitosan salts and, in particular, chitosan hydrochloride provided the lowest release of vancomycin.

L42 ANSWER 24 OF 26 MEDLINE on STN ACCESSION NUMBER: 2003477091 MEDLINE DOCUMENT NUMBER: PubMed ID: 14553988

TITLE: Alkaline chitosan solutions.

AUTHOR: Muzzarelli Corrado; Tosi Giorgio; Francescangeli Oriano;

Muzzarelli Riccardo A A

CORPORATE SOURCE: Institute of Biochemistry, Faculty of Medicine, Polytechnic

University of Marche, Via Ranieri 67, IT-60100 Ancona,

Italy.

SOURCE: Carbohydrate research, (2003 Oct 10) Vol. 338, No. 21, pp.

2247-55.

Journal code: 0043535. ISSN: 0008-6215.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200407

ENTRY DATE: Entered STN: 15 Oct 2003

Last Updated on STN: 29 Jul 2004 Entered Medline: 28 Jul 2004

AB Rigid and transparent hydrogels were obtained upon pouring chitosan salt solutions into saturated ammonium hydrogen carbonate. Incubation at 20 degrees C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO(2)(-)NH(4)(+) a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, molecular sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate and lactate salts. Their

hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solutions at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 degrees C). Citrate could cross-link chitosan and impart insolubility to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH(4)HCO(3) treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solutions of mixed chitosan carbamate and alginate were spray-dried at 115 degrees C to manufacture chitosan-alginate microspheres having prevailing diameter approx 2 micron.

MEDLINE on STN L42 ANSWER 25 OF 26 2003320948 MEDLINE ACCESSION NUMBER: PubMed ID: 12851047 DOCUMENT NUMBER:

Controlled release of vancomycin from freeze-dried TITLE:

chitosan salts coated with different

fatty acids by spray-drying.

Cerchiara T; Luppi B; Bigucci F; Petrachi M; Orienti I; AUTHOR:

Zecchi V

University of Bologna, Department of Pharmaceutical CORPORATE SOURCE: Sciences, Via S. Donato 19/2, 40127 Bologna, Italy.

Journal of microencapsulation, (2003 Jul-Aug) Vol. 20, No. SOURCE:

4, pp. 473-8.

Journal code: 8500513. ISSN: 0265-2048.

England: United Kingdom PUB. COUNTRY:

Journal; Article; (JOURNAL ARTICLE) DOCUMENT TYPE:

English LANGUAGE:

Priority Journals FILE SEGMENT:

ENTRY MONTH: 200311

Entered STN: 10 Jul 2003 ENTRY DATE:

Last Updated on STN: 18 Dec 2003 Entered Medline: 26 Nov 2003

The aim of this study was to describe a controlled drug release system AB based on chitosan salts for vancomycin hydrochloride delivery. Chitosan aspartate (CH-Asp), chitosan glutamate (CH-Glu) and chitosan hydrochloride (CH-HCl) were prepared by freeze-drying and coated with stearic, palmitic, myristic and lauric acids by spray -drying technique. Vancomycin hydrochloride was used as a peptidic model drug whose sustained release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the freeze-dried and spray -dried systems at pH 2.0 and 7.4.

L42 ANSWER 26 OF 26 MEDLINE on STN ACCESSION NUMBER: 2002257824 MEDLINE PubMed ID: 11996810 DOCUMENT NUMBER:

Influence of different chitosan salts TITLE:

on the release of sodium diclofenac in colon-specific

delivery.

Orienti I; Cerchiara T; Luppi B; Bigucci F; Zuccari G; **AUTHOR:** 

Zecchi V

Department of Pharmaceutical Sciences, University of CORPORATE SOURCE:

Bologna, Via S. Donato 19/2, 40127, Bologna, Italy..

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International journal of pharmaceutics, (2002 May 15) Vol. SOURCE:

238, No. 1-2, pp. 51-9.

Journal code: 7804127. ISSN: 0378-5173.

PUB. COUNTRY: Netherlands

Journal; Article; (JOURNAL ARTICLE) DOCUMENT TYPE:

LANGUAGE: English FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200206

ENTRY DATE:

Entered STN: 9 May 2002

Last Updated on STN: 28 Jun 2002 Entered Medline: 27 Jun 2002

AB Chitosan (CH) was dissolved in aqueous solutions containing aspartic, glutamic, hydrochloric, lactic and citric acids to obtain different

chitosan salts. Chitosan salts were collected from the solutions by spray-drying and the powders obtained were mixed with Sodium Diclofenac (SD), taken as a model anti-inflammatory drug. This study evaluated in vitro the influence of acid type on the release behaviour of SD from the physical mixture during gastrointestinal transit. The physical mixture of the chitosan salts with SD provided slower drug release than the pure drug both in acidic and alkaline pHs. In addition, the interaction with beta-glucosidase at pH 7.0 enhanced the release rate. Among the CH salts used, glutamic and aspartic salts provided the best control of release.

L42 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:8

2004:829916 CAPLUS

DOCUMENT NUMBER:

142:448486

TITLE:

Structural characteristics and sorption ability of

chitosan microgranules

AUTHOR (S):

Adamiec, Janusz; Modrzejewska, Zofia

CORPORATE SOURCE:

Wydz. Inz. Procesowej i Ochrony Srodowiska, Politech.

Lodzka, Lodz, 90-924, Pol.

SOURCE:

Inzynieria Chemiczna i Procesowa (2004), 25(3/1),

543-548

CODEN: ICPRDT; ISSN: 0208-6425

PUBLISHER:

Oficyna Wydawnicza Politechniki Wroclawskiej

DOCUMENT TYPE:

Journal

LANGUAGE:

Polish

AB Microgranules were formed by means of spray drying of two chitosan salts: acetate and ascorbate. To reduce solubility, glutaraldehyde and sodium triphosphate were added to the solution Dry microgranules as a product of different chemical composition had different structural characteristics: shape, size, d., and volume, and area of pores. Sorption ability of these microgranules was investigated by measuring the sorption of benzene and carbon dioxide (in a highly-vacuum sorptive instrument).

L42 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1058021 CAPLUS

DOCUMENT NUMBER: 142:43406

TITLE: Hair preparations containing fluorescent nanoparticle

compositions

PATENT ASSIGNEE(S): Wella AG, Germany

SOURCE: Ger. Gebrauchsmusterschrift, 34 pp.

CODEN: GGXXFR

DOCUMENT TYPE:

Patent German

LANGUAGE: Germa
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	DE 202004012607	U1	20041209	DE 2004-202004012607	20040812
PRIC	RITY APPLN. INFO.:			DE 2004-202004012607	
AB	The invention conce	erns hai	r prepns. t	that contain composite n	anoparticles
	that are prepared i	from a m	etal or nor	n-metal core and an orga	nic polymer shell;
	the nanoparticles a	are fluc	rescent. (	Cores are form <del>ed</del> prefera	bly from an
	oxide ceramics; the	e polyme	er coating :	itself can be\fluorescen	t. There can
	be a layer between	the cor	e and the s	shell that is composed o	f polyarom.
	fluorescence substa	ances.	The nanocor	mposites can be prepared	by plasma
	technol. The nanor	particle	es are inclu	ded in the hair prepns.	along with
	hair care substance	es, poly	siloxanes,	thickening agents, suns	creens,
	preservatives, non-	-fluores	cent hair o	dyes, surfactants, oxida	nts, and
	reducing substances	s. Thus	a hair sty	/ling cream contained (w	eight/weight%):
	PMMA-Fe2O3 0.50; ho	lyroxyet	hylcellulo	se 0.10; carbomer 0.50;	
	propyleneglycol 1.5	0; meth	ıylparaben (	0.20; aminomethylpropano	1 0.39;
	polyvinylpyrrolidor	ne 1.50;	glycerin :	1.00; water to 100.	

L42 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1015840 CAPLUS

DOCUMENT NUMBER: 141:428027

TITLE: Method for producing a chitosan-bound salt with

antihypertensive activity

INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park,

Hyun Jin; Kim, In Cheol

PATENT ASSIGNEE(S):

S. Korea

Patent

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	ENT :	NO.			KIN	D	DATE		;	APPL	ICAT	ION I	NO.		. <b>D</b>	ATE		
 WO	2004	1006	 81		A1	-	2004	1125	L125 WO 2004-KR410					20040227				
		ΑE,																
		CN.	CO.	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
											JP,							
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	NO,	
											SD,							
											VC,							
	RW:	BW,															AZ,	
											BG,							
		ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG
R	2004	0995	37		Α		2004	1202	1	KR 2	003-3	3161	5		20	0030	519	
EΡ	1631	155			<b>A1</b>		2006	0308	1	EP 2	004-	7155′	73		20	00402	227	
	R:	DE,	ES,	FR,	GB,	IT												
Ρ	2006	51819	90		T		2006	0810	Ċ	JP 2	005-!	5184	55		20	00402	227	

US 2005232999 A1 20051020 US 2004-518419 20041217
PRIORITY APPLN. INFO.: KR 2003-31616 A 20030519
WO 2004-KR410 W 20040227

The present invention relates to a method for producing a chitosan-bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:999284 CAPLUS

DOCUMENT NUMBER:

142:279143

TITLE:

Process for producing salted fish with seaweeds powder, mugwort extract, green tea extract and

chitosan solution

INVENTOR(S):

Kim, Deuk Gi

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2003094199 PRIORITY APPLN. INFO.:	A	20031211	KR 2003-83704 KR 2003-83704	20031124 20031124

AB A process for producing a salted fish with seaweeds powder, a mugwort extract, a green tea extract and a chitosan solution is provided, thereby preventing adult diseases, removing fishy smell, and preserving freshness of the fish for a long time. The process comprises the steps of: washing and removing internal organs of fish; spraying salts on the fish; spraying seaweeds powder on the surface of the fish; maturing the salted and seaweeds powder sprayed fish; and packaging the matured fish under vacuum condition, wherein the seaweeds include tangleweed, brown seaweed and brown algae; the matured fish may be further dipped in mugwort or green tea extract; the matured fish may be further coated with a chitosan solution

L42 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:869406 CAPLUS

DOCUMENT NUMBER:

142:154620

TITLE:

Manufacturing method of new functional salt and

development of use thereof

INVENTOR(S):

Cho, Kun Sik; Ham, Gyeong Sik; Jung, Sun Taek; Kim, In

Cheol; Park, Hyeon Jin

PATENT ASSIGNEE(S):

S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2001000706	A	20010105	KR 2000-60499	20001006

PRIORITY APPLN. INFO.: KR 2000-60499 20001006

AB A manufacturing method of new functional salt and development of use thereof

provided, which has effects of decreasing blood pressure and antibiosis, by stirring salt and  $\alpha$ -chitosan after dissolving salt to be 20-23% of the saturated solution New functional salt contains 0.1-5% of chitosan dissolved in a salt solution and chitosan is dried and crystallized  $\alpha$ -chitosan is obtained from shells of crab and shrimp and  $\beta$ -chitosan is obtained from squids. The mol. weight of the chitosan is 1,000-1,000,000 MW for proper adhesive capacity with a chloride ion of salt. The content of the chitosan is 0.05-10%, particularly, 0.5-5%. The chitosan is dissolved in water or an organic solution and mixed with salt to make a chitosan salt solution For making 1% of the chitosan salt solution, 20-23% of natural salt is dissolved and stirred with 1% of the chitosan solution for 30-90 min. The chitosan salt solution is spray-dried or concentration-dried to recrystd. the salt having the chitosan.

L42 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:829916 CAPLUS

DOCUMENT NUMBER: 142:448486

TITLE: Structural characteristics and sorption ability of

chitosan microgranules

AUTHOR(S): Adamiec, Janusz; Modrzejewska, Zofia

CORPORATE SOURCE: Wydz. Inz. Procesowej i Ochrony Srodowiska, Politech.

Lodzka, Lodz, 90-924, Pol.

SOURCE: Inzynieria Chemiczna i Procesowa (2004), 25(3/1),

543-548

CODEN: ICPRDT; ISSN: 0208-6425

PUBLISHER: Oficyna Wydawnicza Politechniki Wroclawskiej

DOCUMENT TYPE: Journal LANGUAGE: Polish

AB Microgranules were formed by means of spray drying of two chitosan salts: acetate and ascorbate. To reduce solubility, glutaraldehyde and sodium triphosphate were added to the solution Dry microgranules as a product of different chemical composition had different structural characteristics: shape, size, d., and volume, and area of pores. Sorption ability of these microgranules was investigated by measuring the sorption of benzene and carbon dioxide (in a highly-vacuum sorptive instrument).

L42 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:77658 CAPLUS

DOCUMENT NUMBER: 141:42688

TITLE: Chitosan salts as nasal sustained delivery systems for peptidic drugs

AUTHOR(S): Cerchiara, T.; Luppi, B.; Bigucci, F.; Zecchi, V.

CORPORATE SOURCE: Department of Pharmaceutical Sciences, Bologna, 40127,

Italy

SOURCE: Journal of Pharmacy and Pharmacology (2003), 55(12),

1623-1627

CODEN: JPPMAB; ISSN: 0022-3573

PUBLISHER: Pharmaceutical Press

DOCUMENT TYPE: Journal LANGUAGE: English

AB The aim of this study was to describe a sustained drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan lactate, chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by spray-drying technique. Vancomycin hydrochloride was used as a model peptidic drug, the nasal sustained release of which should avoid first-pass metabolism in the liver. This in-vitro study evaluated the influence of chitosan salts on the release behavior of vancomycin hydrochloride from the phys. mixts. at pH 5.5 and 7.4. In-vitro release of vancomycin was

retarded by chitosan salts and, in particular,

chitosan hydrochloride provided the lowest release of vancomycin.

THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 21

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2003:795160 CAPLUS

DOCUMENT NUMBER:

140:43678

TITLE:

Alkaline chitosan solutions

AUTHOR (S):

Muzzarelli, Corrado; Tosi, Giorgio; Francescangeli,

Oriano; Muzzarelli, Riccardo A. A.

CORPORATE SOURCE:

Faculty of Medicine, Institute of Biochemistry,

Polytechnic University of Marche, Ancona, IT-60100,

Italy

SOURCE:

Carbohydrate Research (2003), 338(21), 2247-2255

CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER:

Elsevier Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE: English Rigid and transparent hydrogels were obtained upon pouring AB

chitosan salt solns. into saturated ammonium hydrogen carbonate. Incubation at 20 °C for 5 days yielded chitosan carbamate ammonium salt, Chit-NHCO2-NH4+ a chemical species that either by hydrolysis or by thermal treatment decomposed to restore chitosan in free amine form. Chitosans of different degrees of acetylation, mol. sizes and origins (squid and crustaceans) were used as hydrochloride, acetate, glycolate, citrate, and lactate salts. Their hydrogels obtained in ammonium hydrogen carbonate yielded chitosan solns. at pH values as high as 9.6, from which microspheres of regenerated chitosans were obtained upon spray-drying. These materials had a modest degree of crystallinity depending on the partial acylation that took place at the sprayer temperature (168 °C). Citrate could cross-link chitosan and impart insoly. to the microspheres. Chloride on the contrary permitted to prepare microspheres of chitosan in free amine form. By the NH4HCO3 treatment, the cationicity of chitosan could be reversibly masked in view of mixing chitosan with alginate in equimolar ratio without coacervation. The clear and poorly viscous solns. of mixed chitosan carbamate and alginate were spray-dried at 115 °C to manufacture chitosan-alginate microspheres having prevailing diameter approx 2

REFERENCE COUNT:

THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS 44 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2003:566810 CAPLUS

DOCUMENT NUMBER:

140:64869

TITLE:

Controlled release of vancomycin from freeze-dried

chitosan salts coated with different

fatty acids by spray-drying

AUTHOR (S):

Cerchiara, T.; Luppi, B.; Bigucci, F.; Petrachi, M.;

Orienti, I.; Zecchi, V.

CORPORATE SOURCE:

Department of Pharmaceutical Sciences, University of

Bologna, Bologna, 40127, Italy

SOURCE:

Journal of Microencapsulation (2003), 20(4), 473-478

CODEN: JOMIEF; ISSN: 0265-2048

PUBLISHER:

Taylor & Francis Ltd.

DOCUMENT TYPE: Journal English LANGUAGE:

The aim of this study was to describe a controlled drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepared by freeze drying and coated with stearic, palmitic, myristic and lauric acids by spray-drying technique.

Vancomycin hydrochloride was used as a peptidic model drug whose sustained

release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts on the release behavior of vancomycin hydrochloride from the freeze-dried and spray-dried systems at

pH 2.0 and 7.4. REFERENCE COUNT:

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:658743 CAPLUS

DOCUMENT NUMBER:

137:190771

TITLE:

Chitosan-containing solution for prophylactic

treatment of teats of lactating animals

INVENTOR(S): Hellman, Asa; Mathisen, Torbjorn

PATENT ASSIGNEE(S):

Swed.

SOURCE:

U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.				KIN	KIND DATE			APPLICATION NO.					DATE				
	US	2002	1199	49		A1		2002										
	CA	2439	465			A1		2002	0906		CA 2	002-	2439	465	•	2	0020	
	WO 2002067952			A1		2002	0906	1	WO 2	002-	SE31	В		2	0020	225		
	WO	2002	0679	52		<b>A8</b>		2004	0521									
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
			co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GΕ,	GH,
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	KZ,	LC,	LK,	LR,
								MD,										
			PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
			UA,	ŪĠ,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW							
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	ΤZ,	ŪĠ,	ZM,	ZW,	AM,	ΑZ,	BY,
			KG,	KZ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB,
			GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,
			GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG							
	EP	1372	572			A1		2004	0102		EP 2	002-	7009	37		2	0020	225
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
								RO,										
	BR	2,002	0075	31		Α		2004	0309		BR 2	002-	7531			2	0020	225
	JP	2005	50883	35		$\mathbf{T}$		2005	0407		JP 2	002-	5673	18		2	0020	225
PRIC	PRIORITY APPLN. INFO.:							US 2001-791739			39	A 20010226						
										1	WO 2	002-	SE31	8	1	W 2	0020	225
						_								4		. ــ ـ ۲		

AB An aqueous solution for prophylactic treatment of teats of lactating cows comprises as a first component at least partially deacetylated chitosan or its acid addition salt in a concentration of up to about 2% by weight of chitosan. A

pH solution of the solution is adjusted to about 4-6.8 by the addition of a mineral

or organic acid. The first component has a mol. weight such that the viscosity of the solution is < 50 mPas. The aqueous solution further comprises a second component selected from heparin, heparan sulfate, and dextran sulfate, the weight ratio between the first and second components being from about 10:1 to about 100:1. For example, 5.8 g 87% glycerol was added to 95 mL of water and 0.3 mL acetic acid (99.9%) was added to the glycerol solution under stirring until a homogeneous solution was obtained. To the solution prepared

was

then added 1.0 g chitosan (MW of about 80 kD, deacetylation degree 94% (Primex)) and stirring was maintained until all chitosan has been dissolved. The pH of this solution was about 5.2. The solution showed improved

stability and resulted in a viscosity lying within the preferred range and

enabling easy handling in connection with the application to the teats.

L42 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

2002:335241 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 138:175642

Influence of different chitosan TITLE:

salts on the release of sodium diclofenac in

colon-specific delivery

Orienti, I.; Cerchiara, T.; Luppi, B.; Bigucci, F.; AUTHOR(S):

Zuccari, G.; Zecchi, V.

Department of Pharmaceutical Sciences, University of CORPORATE SOURCE:

Bologna, Bologna, 40127, Italy

International Journal of Pharmaceutics (2002), SOURCE:

238(1-2), 51-59

CODEN: IJPHDE; ISSN: 0378-5173

Elsevier Science B.V. PUBLISHER:

Journal DOCUMENT TYPE: English LANGUAGE:

Chitosan (CH) was dissolved in aqueous solns. containing aspartic, glutamic, AB

hydrochloric, lactic and citric acids to obtain different chitosan

salts. Chitosan salts were collected from the solns. by spray-drying and the powders obtained were mixed with

Sodium Diclofenac (SD), taken as a model anti-inflammatory drug.

study evaluated in vitro the influence of acid type on the release

behavior of SD from the phys. mixture during gastrointestinal transit.

phys. mixture of the chitosan salts with SD provided

slower drug release than the pure drug both in acidic and alkaline pHs.

addition, the interaction with  $\beta\text{-glucosidase}$  at pH 7.0 enhanced the

release rate. Among the chitosan salts used, glutamic and aspartic salts provided the best control of release.

THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 39

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L42 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

2002:123584 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 136:184114

Preparation of therapeutic water-soluble salts of TITLE:

2-difluoromethyl-2,5-diaminopentanoic acid and

polycations

Hebert, Rolland F. INVENTOR(S):

PATENT ASSIGNEE(S): USA

U.S. Pat. Appl. Publ., 4 pp. SOURCE:

CODEN: USXXCO

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2002019338	A1	20020214	US 2001-919692		20010731
US 6630511	B2	20031007			
US 2004006045	A1	20040108	US 2003-614713		20030707
PRIORITY APPLN. INFO.:			US 2000-222420P	P	20000801
			US 2001-919692	<b>A3</b>	20010731

Water-soluble salts of 2-difluoromethyl-2,5-diaminopentanoic acid (DFMO) with AB polycations (e.g., 80% deacetylated chitosan) are prepared and their therapeutic uses described.

L42 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:781455 CAPLUS

DOCUMENT NUMBER: 135:335172

Therapeutically improved salts of azelaic acid TITLE:

INVENTOR(S): Hebert, Rolland F. PATENT ASSIGNEE(S):

Hebert, Rolland, USA

SOURCE:

U.S. Pat. Appl. Publ., 4 pp.

CODEN: USXXCO

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001034321	A1	20011025	US 2001-791358	20010223
US 6734210	B2	20040511		

P 20000224 US 2000-184750P PRIORITY APPLN. INFO.:

Stable salts of azelaic acid with polycations such as chitosan are described. The salts according to the invention are water-soluble, therapeutically more efficacious and are valuable for use as active constituents in pharmaceutical as well as cosmeceutical compns. A salt was prepd, by the reaction of azelaic acid with chitosan. A 20% cream prepared from the above salt was applied to the fore-arm of 10 individuals.

After 2 wk, no redness, irritation or scaling was observed

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS 17 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## (FILE 'HOME' ENTERED AT 11:43:50 ON 04 JAN 2007)

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FILE 'CAPLUS, MEDLINE' ENTERED AT 11:44:08 ON 04 JAN 2007
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             32 S CHITOSAN? (P) SALT? (P) SPRAY? (P) WATER?
L2
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L3
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L4
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L13
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L14
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L23
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L25
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L26
             12 S ?CHITOSAN-SALT? (P) SPRAY? ON
L27
              0 S ?SALT? BOUND TO CHITOSAN?
L28
             0 S ?SALT? CONTAIN? CHITOSAN?
L29
             0 S ?CHITOSAN-CONTAIN? COMPOUND?
L30
             5 S ?CHITOSAN-CONTAIN? COMPO?
L31
             0 S ?CHITOSAN-SALT COMPO?
L32
             0 S ?CHITOSAN-SALT MIXTURE?
L33
            182 S ?CHITOSAN-LACTATE?
L34
             15 S L34 AND SPRAY?
L35
              4 S L35 AND DRY?
L36
             4 S L35 AND DRIED
L37
             11 S L35 NOT L36
L38
             8 S L38 NOT L37
L39
L40
            330 S ?CHITOSAN-SALT?
L41
             2 S L40 AND SALT PARTICLES?
L42
            26 S L40 AND SPRAY?
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